National Cancer Institute
Bethesda, MD

Carolina Mammography Registry
Chapel Hill, NC

Colorado Mammography Project 1994-2005
Denver, CO

Group Health Cooperative of Puget Sound
Seattle, WA

New Hampshire Mammography Registry
Lebanon, NH

The New Mexico Mammography Project 1994-2005
Albuquerque, NM

San Francisco Mammography Registry
San Francisco, CA

Vermont Breast Cancer Surveillance System
Burlington, VT

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Breast Cancer Surveillance Consortium

Data Dictionary

Version 3.1

The Statistical Coordinating Center

6/2002

FILE DESCRIPTION

I. Patient Information

Typically the information in this file is taken directly from the questionnaire that is completed by the woman each time she obtains a mammogram. Thus, a record should be generated each time a patient completes a questionnaire, and the information should reflect what was known at the time of that particular visit. If a visit is completed and a patient questionnaire is not filled out, it is not necessary to send a record for that visit. The SCC recognizes that sites handle missing patient records and missing patient demographic data differently. If sites backfill information or create patient records for radiology data the SCC is able to use this data, but it is not required to do this since the SCC can handle many instances of missing demographic data analytically on its own end. As a general rule, the SCC would like the most accurate data that reflects what is know at the time of that visit.

Not all information will necessarily come directly from self-report. Some sites or facilities may have to derive the answers from automated data or other secondary sources. In some cases information is directly obtained so it may be considered as reliable as the self-report questionnaire data. In other cases, information may have to be calculated indirectly from other sources. The latter case constitutes "imputing" variables and the SCC considers it desirable to know which values have been imputed. Consequently, for a few important variables the SCC records whether or not certain information has been "imputed" from other sources. Information is considered "imputed" if it is obtained indirectly and may therefore be more likely to be erroneous or differ from self-report. For example, previous breast cancer history could be obtained from the cancer registry rather than directly from the woman. Another example could be classifying a woman as having had a previous mammogram on the basis of a known previous mammography visit to that facility. This would be imputed. However, there will be some gray areas. If a program populates some fields with previously self-reported information and the woman is given a chance to change the value, but does not, this will not be called imputed. The imputed variables will help the SCC keep track of which sites do and do not impute information. The SCC will also record how the imputation is done in its tracking database.

Ordering of the variables in this file reflects the ordering in both the long and short versions of the standardized questionnaires. Furthermore, every item in the questionnaire should map directly to the coding in the Data Dictionary.

In general please use the following rule in coding. If inconsistent information comes from a woman's self-report, code exactly as the woman reported (e.g., if a woman reports that she has never had a mammogram and then reports a date please code both these pieces of data). However, if an inconsistency arises from how the data is collected at the site, please attempt to resolve the inconsistency with whatever data is available and code accordingly.

II. Radiologic Information

Any radiologic event that results in a BIRADS assessment should be recorded here. This will consist mainly of mammograms and ultrasounds, but if other procedures are performed during the same visit that information will also be captured in this file. Radiologic events that do not result in a BIRADS assessment should be recorded in the *Additional Imaging Follow-up* file.

Ordering of the variables in this file reflects the ordering in the long and short versions of the standardized radiologist questionnaires. Every item in the questionnaire should map directly to the coding in the Data Dictionary. This file also contains variables that indicate whether or not certain information has been "imputed." For example, type of views might be imputed from indication for visit. Because this may lead to some inaccuracy we would like to flag that this item was imputed.

If there is a comparison film, the record should only be sent once an assessment is made. Do not send the record if you are waiting for comparison film and record is pending. If a mammogram is double-read, the SCC prefers only one record be sent which reflects the final assessment (if known). If there are two records, and it is not clear which is the final read, send both records and the SCC will determine which to use (depending on the specific analysis it's being used for)." There are further examples of how to code radiologic events in Appendix 12.

III. Additional Imaging Follow-up Information

This section is intended to capture radiology when it is done as follow-up to earlier screening or diagnostic mammography and the outcome is not reported in the BIRADS format. If the follow-up radiology is reported in the BIRADS format, it should be reported in the *Radiologic Information* file. Information that occurs within a two-year follow-up period to either a positive or negative mammographic exam should be reported. It is expected that much less detail about outcomes and recommendations will be available than in the *Radiologic Information* file. If a site gets more than one imaging record per day, all imaging records should be sent. But if a site only gets one record then just the single one should be sent.

IV. Biopsy/Surgery Follow-up Information

This file captures biopsy procedures done as follow-up to an earlier mammography. Information that occurs within a two-year follow-up period to either a positive or negative exam should be reported. This file should be submitted even if pathology and/or registry

information is also submitted. Some sites do not submit pathology so it may be necessary to send this file to evaluate outcomes. Pathology reports add more detail than reported here.

V. Clinical Follow-up Information

This file is no longer sent.

VI. Carcinoma/Registry Information

The information in this file should only be sent for subjects appearing in the *Patient and Radiologic Information* files. It is not necessary to send registry information for subjects on which we have no other information. Sites should send registry data for all years that are available since it will help the SCC determine if there are previous breast cancers. If the SCC cannot receive this information, the sites should try and fill in age at diagnosis and diagnosis date in the Patient Information file. This is one of the few instances where self-report information may be overwritten. If this is done, the imputed personal history of breast cancer variable should be coded appropriately.

This file reflects the information and coding in the SEER manual. It has been updated to the SEER 4th Edition and is compatible with the NAACCR 10.1 file format. In general "structural missing" codes are not applicable here because SEER codes these as unknown (and codes typically used for structurally missing might conflict with existing SEER codes). A blank space is used by NAACCR to indicate structural missing. For our purposes, sites can use either a blank space or the appropriate unknown code (9, 99, etc.), because we want to make it possible for site programmers to produce a file with as little modification as possible. Sites that do not have a SEER-based registry will not be able to provide some of the information. A quick over-view of the fields and changes for this file is provided in Appendix 16.

VII. Deaths & Malignancy Follow-up Information

This file needs to be submitted annually on all women who have died (not only deaths due to breast cancer) to allow computation of survival and mortality. The source for this file is from Registry or death tapes. Do not include information on women without breast cancer who are known to be alive. This file also reflects the information and coding in the SEER manual. In general "structural missing" codes are not used here since SEER would just code as unknown. Sites that do not have a SEER-based registry will not be able to provide some of the information. Variables in the Data Dictionary labeled Core (SEER) indicate that they are core only for SEER sites and are optional for non-SEER sites.

VIII. Pathology Information

It is expected that many sites will not have this information and cannot send this file. Those sites that do collect this information should still have a record in the biopsy/surgery file for events within two years of a mammogram. Sites should send all pathology data if possible. The SCC will supply a map of all SNOMED codes into the categories: Invasive, insitu, etc. There are three artificial SNOMED codes created to capture pathology findings for which a SNOMED code does not exist. See VIII.13 (Snomedm1) for more information on these codes.

If the source for pathology and registry are the same, the data can be reported in the registry file, and the pathology variables (VIII.31-VIII.39 and VIII.41) should be coded as structurally missing (i.e., they don't have to be doubly reported).

Only data generated by a pathology result should be included, SEER data should not be used.

IX. Computed Variables

NOTE – DATA MANAGERS DO NOT SUBMIT THIS FILE

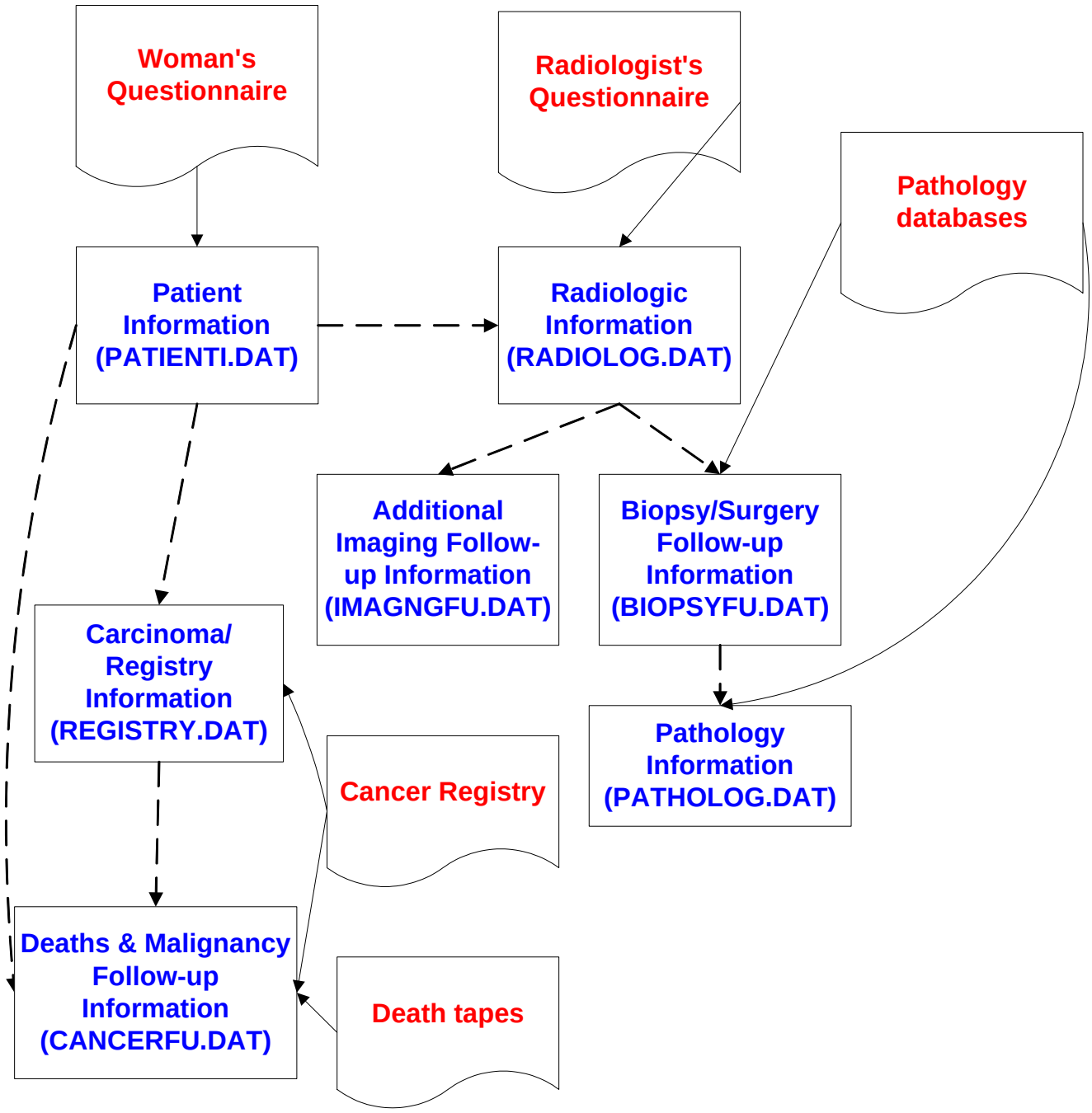
This file documents how the SCC computes variables for analytic purposes using the information in the above data files. This includes some of our standard definitions that apply to the entire Consortium. There may be more than one computed variable for a single outcome such as family history of breast cancer. The differences are usually due to how missing data are handled – either taken as missing or assumed to be "No". This is important in analysis since missing values are typically excluded. This section provides documentation on which variables from the raw data files are used to compute the analytic variables. The actual code (written in SAS) can be found on the Breast Cancer Surveillance Consortium website. *This file is in draft form (working version) and the SAS code on the website is under development.*

Appendices

The source for each appendix is listed in the table below:

Appendix Number	Appendix Source
1	FIPS (Federal Information Processing Standard) County Codes
2	FIPS (Federal Information Processing Standard) State Codes
3	SEER Program Code Manual, 4th edition, Appendix B, pp. B1-B15.
4	SEER Program Code Manual, 4th edition; pp. 45-50
5	SEER Program Code Manual, 3rd edition; Section IV, Field 06, p. 95- 104 (inapplicable pages removed)
6A	SEER Program Code Manual, 2nd edition, revised June 1992, Appendix C, pp. 190-191
6B	Surgery codes based on the SEER Program Code Manual, 3rd edition, Appendix C, pp. C63-C64.
6C	SEER Program Code Manual, 4th edition, Appendix C, pp. C-469-C-486
7	AJCC Cancer Staging Manual. American Joint Committee on Cancer, 6th edition, 2002; Facility Oncology Registry Data Standards (FORDS) Manual, Commission on Cancer (COC), Revised for 2004; Standards for Cancer Registries, North American Association of Central Cancer Registries (NAACCR), Volume II, 10th edition, Version 11, 2004; SEER Program: Comparative Staging Guide for Cancer, Version 1.1, June 1993
8	AJCC Cancer Staging Manual. American Joint Committee on Cancer, 6th edition, 2002; Facility Oncology Registry Data Standards (FORDS) Manual, Commission on Cancer (COC), Revised for 2004; Standards for Cancer Registries, North American Association of Central Cancer Registries (NAACCR), Volume II, 10th edition, Version 11, 2004; SEER Program: Comparative Staging Guide for Cancer, Version 1.1, June 1993
9	Additional information on procedure codes compiled by Don Weaver.
10	March 14, 2002, SEER memo documenting revision of extension fields for breast cancer
11	SNOMED Conversion – DRAFT
12	Examples of how to code radiologic events
13	SCC coding instructions for self-reported breast symptoms
14	SEER Program Code Manual, 4th edition, pp. 95- 104 (inapplicable pages removed)
15	SEER Program Code Manual, 3rd edition, Revision 1, pp. 17-24
16	BCSC Cancer Registry File Changes - Quick Reference Guide
17	BCSC Glossary of Terms

DIAGRAM OF THE FILE STRUCTURE



FILE TRANSFER

To submit the files to the SCC, the following steps should be followed:

1) Run the error program provided by the SCC and correct any errors that occur.
2) Run the encryption program provided by the SCC to encrypt patient, radiologist, and facility identifiers.
3) Run a Zip utility to compress, encrypt, and password-protect each file (see file naming convention below).
4) Browse to the secure file transfer webpage, login and place data in your site's directory.
5) Send e-mail to the SCC data manager once the files have been transferred and indicate each file as being either a complete replacement (replaces all previous data), addition (new data only), update (correction to a record previously sent), or delete (records that should be deleted) file.
6) If you send a file correction and have added new data since the file was first sent, then resend all files.
7) The SCC data manager will send a confirmation message and remove the files from the SCC FTP site within 24 hours.

The following file names should be used during transfer:

Section	File Name
Patient Information	PATIENTI.DAT
Radiologic Information	RADIOLOG.DAT
Additional Imaging Follow-up Information	IMAGNGFU.DAT
Biopsy/Surgery Follow-up Information	BIOPSYFU.DAT
Carcinoma/Registry Information	REGISTRY.DAT
Deaths & Malignancy Follow-up Information	CANCERFU.DAT
Pathology Information	PATHOLOG.DAT

Refer to the SCC for more documentation on how to transfer files.

FILE STRUCTURE

Each section of the data dictionary describes a data file that is submitted in fixed column ASCII format. The following information provides instruction on how to construct each of the files.

Section – Each section contains information on the fields that go into that particular file. The section name appears at the top of every page and describes the file contents.

Field Number – The fields are listed in the order they should appear in the data file. The field number contains both the section number and the numerical order within the section (i.e., I.4 is the fourth field in the Patient Information file).

Field name and description –A name has been given to each field and will be used when referring to that field. A brief field description is also included. The item in parentheses is the SAS variable name used by the SCC.

Code - Valid codes followed by a brief code description are listed under each variable.

Structural . . . . missing	means the field does not appear on the data collection form. It is usually coded as 8, 88, 888, or 8888 depending on the width of the field.
Unknown	means the field is collected but the response was left blank or filled in as unknown. It is usually coded as 9, 99, 999, or 9999 depending on the width of the field.

Note: Some variables allow 8, 9, 88, and 99 as valid codes and are not to be used for structural missing or unknown.

Core Status - The core status of a field indicates whether or not the information is required (minimal structural missing or unknown).

Key Field	is a required field. The combination of key fields is used to uniquely identify a record.
Bookkeeping . .	is a required field. The only bookkeeping field is "SCC date" and is used by the SCC to keep track of data submission dates.
Core	is a required field. Typically, any information that appears on the short version of the Consortium standardized questionnaires is considered a core field.
Core (SEER) . .	is a required field only for those sites that have a SEER-based registry. Sites that do not have a SEER-based registry may have some missing information in these fields.
Optional	may contain a structural missing or unknown code. Typically, any information that does not appear on the short version of the Consortium standardized questionnaires is considered an optional field.

Character Position, Width – This is the number of spaces to be filled for a field. All spaces must be filled in so the file does not contain any blanks. If a code is less than the field width, put in leading zeroes (i.e., 9 should be coded as 09 if the field width is 2).

Character Position, Start – This is the column number in which the field starts.

Character Position, Stop – This is the column number in which the field ends.

Last Edit – This is the most recent date any information for a field was changed by the SCC.

Contents

I. PATIENT INFORMATION

VII. DEATHS & MALIGNANCY FOLLOW-UP INFORMATION

VIII. PATHOLOGY INFORMATION

Contents in Alphabetical Order

I. PATIENT INFORMATION

II. RADIOLOGIC INFORMATION

III. ADDITIONAL IMAGING FOLLOW-UP INFORMATION

IV. BIOPSY & SURGERY FOLLOW-UP INFORMATION

VI. CARCINOMA / REGISTRY INFORMATION

VII. DEATHS & MALIGNANCY FOLLOW-UP INFORMATION

VIII. PATHOLOGY INFORMATION

SCC Data Dictionary

Section I, Variables 1 to 4

Section Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.1	**Record type** **Patient information record. Only one code allowed.** (rectype)	8	1	8	

Code:

PATIENTI	Patient Information record. Only one code allowed.

I.2	**Study site** **Unique identifier for study site.** (site)	1	9	9	

Code:

X	Unique assigned letter for your site (Capitalized)

I.3	**Study ID** **Unique person identifier for study site.** (studyid)	10	10	19	

Code:

xxxxxxxxxx	Encrypted, unique person identifier for site

I.4	**Information date** **Date information was collected on woman. (Typically date of survey.)** (infodate)	8	20	27	

Code:

xxxxxxxx	Three variables: Mo(xx); Day(xx); Year(xxxx)

Section Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.5	**SCC date** **Date prepared for SCC** (sccdate)	8	28	35	

Code:

xxxxxxxx	Three variables: Mo(xx); Day(xx); Year(xxxx)

I.6	**Birth date** **Self-reported/medical record date of birth.** (bdate)	8	36	43	

Code:

xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx); Structural missing = 88 for mo&day; 8888 for year; Unknown = 99 for mo&day; 9999 for year

I.7	**Current age**	3	44	46	02/12/2005

Exact age of women in years (truncated) at time of survey (time patient information is collected), not at time of exam. If calculated from I.4 Information date and I.6 Birth date, take the integer value and drop the decimal place (i.e., 35.9 should be coded as 035). No data should be sent for anyone under age 18. Also check ages > 100 since there may be a coding problem. This should be the age of the woman at time of survey (time patient information is collected) not at exam.

(age)

```
SAS Code to calculate exact age from infodate and bdate:
age=floor((intck('month',bdate,infodate)-(day(infodate)<day(bdate)))/12);
```

Code:

xxx	Actual age
888	Structural missing
999	Unknown

I.8	**Zip code**	5	47	51	06/06/2001

Residence zip code. If military personnel use an out-of-area zip code, it is better to use their home zip code instead of 00000.

(zipcode)

Code:

xxxxx	Five digit zip for residence, 99999=unknown
00000	Use as the zip code for people in the military

Section / Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.9	**Symptoms**	1	52	52	05/11/2004

Self-report of recent (last 6 months) symptoms not including breast pain. Use code 0 for no symptoms or breast pain only; code 1 if there are any symptoms (lump, nipple discharge, or other) in right breast only; code 2 if symptom(s) in left breast only; code 3 if symptom(s) in one breast only, laterality not specified; code 4 if at least one symptom in each breast; code 5 if symptom(s) noted at woman-level only and no other information is available; code 8 if symptoms are not collected by the site; code 9 if symptoms are collected by the site, but are unknown here. For sites using standardized questionnaire, this is computed from I.11-Lump, I.12-Nipple discharge, and I.14-Other symptoms. For sites imputing symptoms, code 0 - No Symptoms if pain is the only symptom.

(symptcur)

```
Other symptoms may include breast pain if it is not listed separately as a
specific symptom.
```

Code:

0	No symptoms
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

I.10	**Imputed symptoms**	1	53	53	05/11/2003

Indicator variable for "I.9 - Symptoms" field. This indicates whether or not symptoms variable was imputed. If unable to tell if information was imputed, use code 9. Note: Do not include pain as a symptom if imputing this information.

(sympimp)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

Section / Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.11	**Lump**	1	54	54	05/11/2004

Self-report of recent (last 6 months) breast change involving a lump. If the patient survey doesn't contain a specific question about lump, use code 8. For information on coding written in symptom descriptions see Appendix 13.

(lump)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

I.12	**Nipple discharge**	1	55	55	05/11/2004

Self-report of recent (last 6 months) breast change involving nipple discharge. If the patient survey doesn't contain a specific question about nipple discharge, use code 8. For information on coding written in symptom descriptions see Appendix 13.

(discharg)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

Section / Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.13	**Breast pain**	1	56	56	05/11/2004

Self-report of recent (last 6 months) breast change involving pain. If the patient survey doesn't contain a specific question about breast pain, use code 8. For information on coding written in symptom descriptions see Appendix 13.

(pain)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

I.14	**Other symptoms**	1	57	57	05/11/2004

Self-report of recent (last 6 months) breast changes involving other symptoms not specifically asked on the patient survey. If lump, nipple discharge, or breast pain do not appear as separate questions on the patient survey, these symptoms may be included in this variable. For information on coding written in symptom descriptions see Appendix 13.

(othsymp)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

I.15	**Reason for visit**	1	58	58	05/11/2004

Patient reason for visit. If more than one reason is given then code the most severe (highest value = 3).

(reason)

Code:

1	Routine screening
2	Follow-up to routine screening exam
3	Concerns about breast problems
8	Structural missing
9	Unknown

Section / Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.16	**Imputed patient reason for visit**	1	59	59	

Indicator variable for field "I.15 - Reason for Visit" field. This indicates whether or not the patient reason for visit variable was imputed. If unable to tell if information was imputed, use code 9.

(reasimp)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

I.17	**First concerned about breast problems**	1	60	60	10/06/2000

First person to be concerned about breast problems.

(concern)

Code:

0	No concerns
1	Patient
2	Physician or other healthcare provider
3	Other person (friend, spouse…)
4	Concern (cannot determine between patient and provider)
8	Structural missing
9	Unknown

I.18	**Ever mammogram**	1	61	61	

Ever had a mammogram?

(evermamm)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

Section / Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.19	**Time since last mammogram**	1	62	62	06/06/2001

Woman's self-report of time since last mammogram. If calculated from I.20 Date of last mammogram, compute months, round up all fractional months, and use classification below. Do not try to impute the value from other information you have about the woman's last mammogram. Previous mammogram date is also recorded in the Radiology file. **Field is Core only if I.20 - Date of Last Mammogram is not given. If date of last mammogram is recorded, please compute this variable using months. If both current and last exam dates have known dates, then compute months and round up. If only month/year is known for last exam, then use current month/year to compute the number of months. If only year is known for last exam, then use only year of current exam to compute the number of months (i.e. answer would be 12, 24, etc. months).

(timesinc)

Code:

0	No previous mammogram
1	Within a year (0-11 months)
2	1-2 years (12-35 months)
3	3-4 years (36-59 months)
4	Five years or more (60+ months)
8	Structural missing
9	Unknown

I.20	**Date of last mammogram**	8	63	70	10/06/2000

Woman's self-report of the date of last mammogram. 9's should be used (99999999) if this variable is not applicable.

(lastdate)

Code:

xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx); Structural missing = 88 for mo&day; 8888 for year; Unknown = 99 for mo&day; 9999 for year

Section / Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.21	**Time since last CBE**	1	71	71	05/11/2004

Report of time since last clinical breast exam. If calculated from I.22 Date of last CBE, compute months, round up all fractional months, and use classification below. Only codes 0 & 1 are core - knowledge of a CBE done within the last 3 months. If information is available on CBE greater than 3 months ago use codes 2 & 3. If it is known that a CBE was never done, use code 4, not code 0. Use code 5 if you cannot determine if the CBE was done within the last 3 months.

(lastcbe)

Code:

0	No CBE within the last 3 months/no other information
1	CBE within the last 3 months (0-3 months)
2	CBE 4 months to 1 year ago (4-12 months)
3	CBE more than 1 year ago (13+ months)
4	Never had CBE
5	Within the last year
6	No CBE within the last 12 months / no other information
8	Structural missing
9	Unknown

I.22	**Date of last CBE**	8	72	79	10/06/2000

Report of date of last clinical breast exam. 9's should be used (99999999) if this variable is not applicable.

(cbedate)

Code:

xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx); Structural missing = 88 for mo&day; 8888 for year; Unknown = 99 for mo&day; 9999 for year

I.23	**Personal history of breast cancer**	1	80	80	

Personal history of breast cancer.

(bchist)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

Section / Field Number	Character Position Width	Start	Stop	Last Edit

I PATIENT INFORMATION

I.24 Imputed personal history of breast cancer

1 81 81

Indicator variable for "I.23 - Personal History of breast cancer". This indicates whether or not personal history of breast cancer variable was imputed. If unable to tell if this information was imputed, use code 9.

(cancimp)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

I.25 Age at diagnosis

2 82 83

Age at first diagnosis. Structural missing is 08, not 88 for this variable and Unknown is 09 not 99. Do not override any self-report information that is filled in for personal history of breast cancer. However, if personal history is "yes" and age and date are "unknown", AND if a site does not send its cancer registry data from all available years (in which case the SCC would not be able to determine if there are previous breast cancers), you may fill in age at diagnosis or date of diagnosis.

(ageatdx)

```
Additional detail available from some sites; may be computed from year of
diagnosis.
```

Code:

00	no BC
01	Age <30
02	Age 30-39
03	Age 40-49
04	Age 50-59
05	Age 60-69
06	Age 70+
xx	Actual age (valid range 10-99)
08	Structural missing
09	Unknown

I.26 Date of diagnosis

8 84 91 10/06/2000

Date of first diagnosis. 9's should be used (99999999) if this variable is not applicable. Do not override any self-report information that is filled in for personal history of breast cancer. However, if personal history is "yes" and age and date are "unknown", AND if a site does not send its cancer registry data from all available years (in which case the SCC would not be able to determine if there are previous breast cancers), you may fill in age at diagnosis or date of diagnosis.

(dxdate)

Code:

xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx); Structural missing = 88 for mo&day; 8888 for year; Unknown = 99 for mo&day; 9999 for year

Section / Field Number	Character Position Width	Start	Stop	Last Edit
I PATIENT INFORMATION				
I.27 **Aspiration**	1	92	92	10/06/2000

Fine needle aspiration (FNA) or cyst aspiration only. If woman does not check YES to any procedure and also does not check the box indicating that she has "not had any of the above procedures," please code 9.
(aspirate)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

I.28 **Personal history of biopsy**	1	93	93	10/06/2000

Code if any biopsies except FNA or cyst aspiration. If woman does not check YES to any procedure and also does not check the box indicating that she has "not had any of the above procedures," please code 9. If FNA is combined with biopsy, code as biopsy.
(hxbiopsy)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

I.29 **Date of biopsy**	8	94	101	10/06/2000

If more than one, record the most recent. 9's should be used (99999999) if this variable is not applicable.
(biopdate)

Code:

xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx); Structural missing = 88 for mo&day; 8888 for year; Unknown = 99 for mo&day; 9999 for year

Section / Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.30	**Lumpectomy**	1	102	102	10/06/2000

Personal history of lumpectomy for breast cancer. If woman does not check YES to any procedure and also does not check the box indicating that she has "not had any of the above procedures," please code 9.
(lumpect)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

I.31	**Mastectomy**	1	103	103	10/06/2000

Personal history of mastectomy. If woman does not check YES to any procedure and also does not check the box indicating that she has "not had any of the above procedures," please code 9.
(mastect)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

I.32	**Radiation therapy**	1	104	104	10/06/2000

Personal history of radiation therapy. If woman does not check YES to any procedure and also does not check the box indicating that she has "not had any of the above procedures," please code 9.
(radtherp)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

Section / Field Number	Width	Start	Stop	Last Edit
I PATIENT INFORMATION				
I.33 **Breast reconstruction**	1	105	105	10/06/2000

Personal history of breast reconstruction. If woman does not check YES to any procedure and also does not check the box indicating that she has "not had any of the above procedures," please code 9.

(reconst)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

I.34 **Breast reduction**	1	106	106	10/06/2000

Personal history of breast reduction. If woman does not check YES to any procedure and also does not check the box indicating that she has "not had any of the above procedures," please code 9.

(brstredx)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

Section / Field Number	Character Position Width	Start	Stop	Last Edit

I PATIENT INFORMATION

I.35 Breast implants

1 107 107 05/11/2004

If it is determined that the women has implants this variable should be coded, regardless of how the information is ascertained (e.g. radiology system). If implants are removed, code as 0. If woman does not check YES to any procedure and also does not check the box indicating that she has "not had any of the above procedures," please code 9.

(brstaugm)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

I.36 Mother with BC

1 108 108

Birth mother has had breast cancer. **Core only requires knowing if the mother has ever had a diagnosis of breast cancer, code 0 or 3. If information on age at diagnosis is available, use code 1 or 2.

(motherbc)

Assumes site can distinguish type of first degree relative (code 8 if site does not distinguish)

Code:

0	Mother did not have BC
1	Mother had BC age <50
2	Mother had BC age >=50
3	Mother had BC (age unspecified)
8	Structural missing
9	Unknown

Section / Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.37	**Sister(s) with BC**	1	109	109	

Any sisters with breast cancer?

(sisterbc)

Assumes site can distinguish type of first degree relative (code 8 if site does not distinguish)

Code:

0	No sisters with BC
1	Exactly one sister with BC
2	Two or more sisters with BC
3	One or more sisters with BC (number unspecified)
8	Structural missing
9	Unknown

I.38	**Daughter(s) with BC**	1	110	110	

Any daughters with breast cancer?

(daughtbc)

Assumes site can distinguish type of first degree relative (code 8 if site does not distinguish)

Code:

0	No daughters with BC
1	Exactly one daughter with BC
2	Two or more daughters with BC
3	One or more daughters with BC (number unspecified)
8	Structural missing
9	Unknown

I.39	**First degree relative with BC**	1	111	111	06/06/2001

Code YES if there is at least one first degree relative (mother, sister, daughter) who had a breast cancer diagnosis. Code UNKNOWN if all answers are unknown; Code NO for any other combination.

(firstdeg)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.40	**Mother's age at diagnosis**	2	112	113	

Mother's age at diagnosis. If the only available information on age is < 50, >= 50 this should be recorded in I.36 - Mother with breast cancer. If not used, code as 08. Note: Structural missing is 08, not 88 for this variable and unknown is 09, not 99.

(momagedx)

This is specific information from the standardized long questionnaire.

Code:

00	no BC
01	Age <30
02	Age 30-39
03	Age 40-49
04	Age 50-59
05	Age 60-69
06	Age 70+
xx	Actual age (valid range 10-99)
08	Structural missing
09	Unknown

I.41	**Sisters with BC age <50**	1	114	114	

Number of sisters who were diagnosed with breast cancer under age 50. Use code 0 if patient has no sisters.

(sister50)

Code:

0	No sisters with BC age <50
1	Exactly one sister with BC age <50
2	Two or more sisters with BC age <50
3	One or more sisters with BC age <50 (number unspecified)
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.42	**Sister's age at diagnosis**	2	115	116	

If more than one sister, code the age of youngest diagnosed sister. Structural missing is 08, not 88 for this variable and unknown is 09, not 99.

(sisage)

Code:

00	no BC
01	Age <30
02	Age 30-39
03	Age 40-49
04	Age 50-59
05	Age 60-69
06	Age 70+
xx	Actual age (valid range 10-99)
08	Structural missing
09	Unknown

I.43 **Daughter(s) with BC age <50** — 1 — 117 — 117

Number of daughters who were diagnosed with breast cancer under age 50. Use code 0 if patient has no daughters.

(daught50)

Code:

0	No daughters with BC age <50
1	Exactly one daughter with BC age <50
2	Two or more daughters with BC age <50
3	One or more daughters with BC age <50 (number unspecified)
8	Structural missing
9	Unknown

Section / Field Number	Character Position Width	Start	Stop	Last Edit

I PATIENT INFORMATION

I.44 Daughter's age at diagnosis

2 118 119

If more than one daughter, code the age of youngest diagnosed daughter. Structural missing is 08, not 88 for this variable and unknown is 09, not 99.

(daughage)

Code:

00	no BC
01	Age <30
02	Age 30-39
03	Age 40-49
04	Age 50-59
05	Age 60-69
06	Age 70+
xx	Actual age (valid range 10-99)
08	Structural missing
09	Unknown

I.45 First degree relative with BC age <50

1 120 120

If computed from separate questions about mother, sister, and daughter, use codes 1 - 3 if there is at least one first degree relative who had a breast cancer diagnosis before the age of 50; code 9 if all answers are unknown; code 0 for any other combination.

(first50)

Code:

0	No first degree relative with BC age <50
1	Exactly one first degree relative with BC age <50
2	Two or more first degree relatives with BC age <50
3	One or more first degree relatives with BC age <50 (number unspecified)
8	Structural missing
9	Unknown

I.46 Ovarian cancer history

1 121 121

Personal history of ovarian cancer.

(ovhist)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

Section / Field Number	Character Position Width	Start	Stop	Last Edit
I PATIENT INFORMATION				
I.47 **First degree relative with ovarian cancer**	1	122	122	06/06/2001

First degree relative (mother, sister, or daughter) with ovarian cancer. If the patient does not check any of these codes, use code 9. Use code 1 if the woman checked YES to any of the first-degree relative boxes (mother, sister, or daughter).

(firstov)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

I.48 **Other relative with ovarian cancer**	1	123	123	

Other relative with ovarian cancer. Code 8 for all patients if your site's form does not ask about other relatives with ovarian cancer.

(otherov)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

I.49 **Menarche age**	1	124	124	

Age at menarche

(menrcage)

Code:

0	No menarche
1	Age <= 12
2	Age 13
3	Age 14
4	Age >=15
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.50	**Hormone medications**	1	125	125	06/06/2001

Any hormone-related medications, e.g., Tamoxifen, Raloxifene - refers to current use only. Do not include thyroid medications, hormone-based birth control, or non-prescription estrogens. Tamoxifen or Raloxifene should be included as YES if the woman used them. Should be coded as YES if HRT is being used.

(hormany)

Code:

0	No
1	Yes
2	HRT or oral contraceptives, cannot be distinguished
8	Structural Missing
9	Unknown

I.51	**HRT**	1	126	126	06/06/2001

Hormone replacement therapy - refers to current use only. A common brand name is Premarin.

(hrt)

Code:

0	No
1	Yes
2	HRT or oral contraceptives, cannot be distinguished
8	Structural Missing
9	Unknown

I.52	**Type of HRT**	1	127	127	

Type of hormone replacement therapy - refers to current use only.

(hrttype)

Code:

0	No HRT
1	Estrogen
2	Progesterone
3	Both estrogen and progesterone
4	HRT NOS
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.53	**Tamoxifen or Raloxifene**	1	128	128	10/06/2000

Refers to current use only. The common brand names are Nolvadex for Tamoxifen and Evista for Raloxifene. Only codes 0 and 3 are core.

(tamxralx)

Code:

0	No
1	Tamoxifen
2	Raloxifene
3	Yes NOS
8	Structural missing
9	Unknown

I.54 **Birth control hormones** 1 129 129 06/06/2001

This includes oral contraceptives, Depo-provera and Lunelle. Refers to current use only.

(bchorm)

Code:

0	No
1	Yes
2	HRT or Oral contraceptives, can't be distinguished
8	Structural Missing
9	Unknown

I.55 **Other hormone medications** 1 130 130

Refers to current use only, specific type not known. Do not include thyroid medication, hormone - based birth control, or non - prescription estrogens if possible.

(othhorm)

```
 Information for variable comes directly from "Other" category on standardized
questionnaire.
```

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

Section / Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.56	**Menopausal**	1	131	131	05/11/2004

Have woman's menstrual periods stopped permanently? Use code 3 if menopause is due to some known other reason - other than natural or surgical reasons. For example known other reasons could be: HRT, chemotherapy, never began menstruating. Use code 4 if menopause is due to some unknown reason (i.e., the reason cannot be distinguished between codes 1-3).

(menopaus)

Code:

0	No
1	Yes, natural menopause
2	Yes, surgical procedure
3	Yes, other known reason
4	Yes, NOS
5	Not sure
6	Yes, but periods induced by hormones
7	Yes, other unknown reason
8	Structural missing
9	Unknown

I.57	**Removal of uterus**	1	132	132	

(remuters)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

I.58	**Removal of both ovaries**	1	133	133	10/12/2000

If cannot distinguish between one or both ovaries removed, code as YES. If only one ovary is removed and the other is known to be present, code as NO.

(removary)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.59	**Date of last natural period** 9's should be used (99999999) if this variable is not applicable. (mensdate)	8	134	141	10/06/2000

Code:

xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx); Structural missing = 88 for mo&day; 8888 for year; Unknown = 99 for mo&day; 9999 for year

I.60	**Days since last menstrual period** Days since last menstrual period. If natural periods stopped permanently, use code 0; otherwise, use codes 1-9. If computed from date of last period, use categories below. (daylmp)	1	142	142	

Code:

0	No periods
1	0-7 days ago
2	8-14 days ago
3	15-21 days ago
4	22-33 days ago
5	34+ days ago
8	Structural missing
9	Unknown

I.61	**Age at menopause** If natural menstrual periods stopped permanently, use codes 01-99; otherwise, use code 00. (menoage)	2	143	144	

Code:

00	No menopause
01	Age <30
02	Age 30-39
03	Age 40-44
04	Age 45-49
05	Age 50-54
06	Age 55+
xx	Actual age (valid range 07-87)
88	Structural missing
99	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.62	**Ever given birth** (everbrth)	1	145	145	

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

I.63	**Age at first birth** **Age of woman at first birth. Codes 00, 07, and 08 satisfy the minimal requirements for core; Codes 00-05, xx are used for those with more info; Code xx is actual age** (age1stb)	2	146	147	

Code:

00	Nulliparous
01	Age < 20
02	Age 20-24
03	Age 25-29
04	Age 30-34
05	Age 35-39
06	Age 40+
07	Age <30
08	Age >=30
xx	Actual age (valid range 09-87)
88	Structural missing
99	Unknown

I.64	**Height** **Current height in inches. For height values greater than 87 inches, code as 87. Code 88 is reserved strictly for structural missing and code 99 for unknown.** (height)	2	148	149	05/11/2004

Code:

xx	Height in inches
88	Structural missing
99	Unknown

Section / Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.65	**Weight**	3	150	152	06/06/2001

Current weight in pounds. Note structural missing is code 888 and unknown code is 999.

(weight)

Code:

xxx	Weight in pounds
888	Structural missing
999	Unknown

I.66	**Hispanic origin**	1	153	153	01/08/2005

Hispanic, Spanish or Latina origin. Sources other than cancer registry can be used to impute race, as long as the information is available for both cancer and non-cancer cases.

(hispanic)

SEER uses Spanish surname, but this corresponds better to the census definition

Code:

0	No
1	Yes
3	No, imputed
4	Yes, imputed
8	Structural missing
9	Unknown

I.67	**Race - White**	1	154	154	02/08/2005

White or Caucasian descent. Code 1 if patient identifies herself as this race. Code 0 otherwise. For combinations, code 1 for each race variable a woman checks. For example, if a woman identifies herself as both Asian and White, the Asian variable should be coded as 1 and the White variable should be coded as 1. Every other race variable should be coded as 0. Sources other than cancer registry can be used to impute race, as long as the information is available for both cancer and non-cancer cases.

(white)

Codes 3 and 4 are to be added to all race fields and the hispanic field. I.66 - I.72

Code:

0	No
1	Yes
3	No, imputed
4	Yes, imputed
8	Structural missing
9	Unknown

Section / Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.68	**Race - Black**	1	155	155	01/08/2005

Black or African-American descent. Code 1 if patient identifies herself as this race. Code 0 otherwise. For combinations, code 1 for each race variable a woman checks. For example, if a woman identifies herself as both Asian and White, the Asian variable should be coded as 1 and the White variable should be coded as 1. Every other race variable should be coded as 0. Sources other than cancer registry can be used to impute race, as long as the information is available for both cancer and non-cancer cases.

(black)

Code:

0	No
1	Yes
3	No, imputed
4	Yes, imputed
8	Structural missing
9	Unknown

I.69	**Race - Asian**	1	156	156	01/08/2005

Asian descent (Chinese, Japanese, Filipina, Vietnamese, other Asian). Use code 2 if you can only code woman as Asian/Pacific Islander. Code 1 if patient identifies herself as this race. Code 0 otherwise. For combinations, code 1 for each race variable a woman checks. For example, if a woman identifies herself as both Asian and White, the Asian variable should be coded as 1 and the White variable should be coded as 1. Every other race variable should be coded as 0. Sources other than cancer registry can be used to impute race, as long as the information is available for both cancer and non-cancer cases.

(asian)

Code:

0	No
1	Yes (Asian)
2	Asian/Pacific Islander NOS
3	No, imputed
4	Yes, imputed
8	Structural Missing
9	Unknown

Section / Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.70	**Race - Native Hawaiian/Pacific Islander**	1	157	157	01/08/2005

Native Hawaiian or other Pacific Islander. If a women can only be coded as Asian/Pacific Islander use code 8. Code 1 if patient identifies herself as this race. Code 0 otherwise. For combinations, code 1 for each race variable a woman checks. For example, if a woman identifies herself as both Asian and White, the Asian variable should be coded as 1 and the White variable should be coded as 1. Every other race variable should be coded as 0. Sources other than cancer registry can be used to impute race, as long as the information is available for both cancer and non-cancer cases.

(hawpac)

Code:

0	No
1	Yes
3	No, imputed
4	Yes, imputed
8	Structural missing
9	Unknown

I.71	**Race - American Indian or Alaska Native**	1	158	158	01/08/2005

American Indian or Alaska Native. Code 1 if patient identifies herself as this race. Code 0 otherwise. For combinations, code 1 for each race variable a woman checks. For example, if a woman identifies herself as both Asian and White, the Asian variable should be coded as 1 and the White variable should be coded as 1. Every other race variable should be coded as 0. Sources other than cancer registry can be used to impute race, as long as the information is available for both cancer and non-cancer cases.

(indalsk)

Code:

0	No
1	Yes
3	No, imputed
4	Yes, imputed
8	Structural missing
9	Unknown

Section / Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.72	**Race - Other**	1	159	159	01/08/2005

Race other than identified above. Code 1 if patient identifies herself as this race. Code 0 otherwise. For combinations, code 1 for each race variable a woman checks. For example, if a woman identifies herself as both Asian and White, the Asian variable should be coded as 1 and the White variable should be coded as 1. Every other race variable should be coded as 0. Sources other than cancer registry can be used to impute race, as long as the information is available for both cancer and non-cancer cases.

(otherrac)

Code:

0	No
1	Yes
3	No, imputed
4	Yes, imputed
8	Structural missing
9	Unknown

I.73	**Education**	1	160	160	

Highest level of education completed.

(educat)

Code:

1	< High school graduate
2	High school graduate or GED
3	Some college/technical school
4	College or post - college graduate
8	Structural missing
9	Unknown

I.74	**Medicare**	1	161	161	06/06/2001

Covered by Medicare. If patient checks "not sure," code 9. Check codes carefully. More than one can be indicated.

(medicare)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.75	**Medicaid**	1	162	162	06/06/2001

Covered by Medicaid. If patient checks "not sure," code 9. Check codes carefully. More than one can be indicated.

(medicaid)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

I.76	**Private insurance**	1	163	163	06/06/2001

Covered by private insurance. If "not sure" is checked by patient, code 9. Check codes carefully. More than one can be indicated.

(privins)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

I.77	**Managed care**	1	164	164	06/06/2001

Covered by managed care insurance (HMO, PPO...). If "not sure" is checked by patient, code 9. Check codes carefully. More than one can be indicated.

(mancare)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

I.78	**Other insurance**	1	165	165	06/06/2001

Covered by other insurance (not otherwise specified). If "not sure" is checked by patient, code as 9. If patient is known to have coverage, but type is unknown, code as 1. Check codes carefully. More than one can be indicated.

(othinsur)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

Section / Field Number		Character Position Width	Start	Stop	Last Edit
I	**PATIENT INFORMATION**				
I.79	**HRT usage duration**	1	166	166	05/11/2004

Duration for how long in years a women has taken female hormones. If sites do not collect duration information about HRT usage, then code as structural missing 8.

(hrtdurat)

Code:

0	Not using HRT
1	Less than 1 year
2	1 to 2 years
3	3 to 4 years
4	5 to 9 years
5	10 to 14 years
6	15 years or more
7	1 - 4 years
8	Structural missing
9	Unknown

I.80 **HRT year started** — 4 | 167 | 170 | 05/20/2003

The year a woman started taking hormone replacement.

(hrtyear)

Code:

xxxx	year started (xxxx), i.e., 1998
8888	Structural missing
9999	Unknown

I.81 **Natural Hormone Supplement** — 1 | 171 | 171 | 05/11/2004

Natural Hormone Supplement (non prescription) refers to current use only.

(nathorms)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.1	**Record type** **Radiology record.** (rectype) *Code:* RADIOLOG Radiology record. Only one code allowed	8	1	8	
II.2	**Study site** **Unique site identifier** (site) *Code:* X Unique assigned letter for your site (Capitalized)	1	9	9	
II.3	**Study ID** **Unique person identifier** (studyid) *Code:* xxxxxxxxxx Encrypted, unique person identifier for site	10	10	19	
II.4	**Information date** **Date information was collected on woman. (Typically date of exam.)** (infodate) *Code:* xxxxxxxx Three variables: Mo(xx); Day(xx); Year(xxxx)	8	20	27	

Section Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.5	**Exam sequence**	1	28	28	10/12/2000

Code used to order multiple procedures on the same day and helps to uniquely identify records. If unsure of the exam sequence use the following guidelines: if there is a screen, it should be coded first. Otherwise, the standard procedure for assigning exam sequence (if it is unknown), is to sort by indication (ordered 1,3,4,2). If equal on indication, then sort by assessment (ordered 0-5). Codes 8 and 9 are valid codes and should not be used for structural missing and unknown.

(examseq)

```
Necessary to distinguish among events on the same day, will almost always be
one.  If the sequence is unknown, the indication for exam can be used to help
with the ordering where 1 (routine screening) typically occurs first.
```

Code:

1	If first interpretation on that date or only one interpretation on that date
2	If second interpretation on that date
3…	If third interpretation on that date, etc…

II.6	**SCC date**	8	29	36	

Date prepared for SCC

(sccdate)

```
Date prepared or sent to SCC - allows corrections in the future
```

Code:

xxxxxxxx	Three variables: Mo(xx); Day(xx); Year(xxxx)

II.7	**Exposure site ID**	8	37	44	

Unique identifier for radiologic site. If the exposure site ID is structural missing or unknown, it should not be encrypted.

(exposid)

Code:

XXXXXXXX	Encrypted ID
88888888	Structural Missing
99999999	Unknown

II.8	**Reader site ID**	8	45	52	

Unique identifier for interpretation site. If the reader site ID is structural missing or unknown, it should not be encrypted. This should be filled in even if the reader site is the same as the exposure site.

(readsite)

Code:

XXXXXXXX	Encrypted ID
88888888	Structural Missing
99999999	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.9	**Reader ID** **Unique identifier for reader. If the reader ID is structural missing or unknown, it should not be encrypted. If possible, each reader should have a single ID that does not vary across facilities.** (readerid) `First reader if more than one`	8	53	60	
II.10	**Exam date** **Date of radiologic event** (examdate)	8	61	68	
II.11	**Reading date** **Date of interpretation. Note: This should be on or after exam date.** (readdate)	8	69	76	
II.12	**Previous mammogram date** **Date of last previous mammogram. 9's should be used (99999999) if this variable is not applicable. In a situation where there are two mammograms on the same day, the mammogram performed earlier in the day should not be coded in II.12. However II.12 should be coded when there is a previous mammogram from an previous day (i.e., from an earlier series). For example, If a women had screening and diagnostic mammograms on a single day and a previous mammogram one year earlier, the mammogram from one year ago would be coded as the previous mammogram date.** (prevdate) `Helps detemine whether this is a diagnostic or screening mammogram. This information is taken from the database as opposed to information in Patient Information file based on woman's self-report.`	8	77	84	10/06/2000

Code:

XXXXXXXX	Encrypted ID
88888888	Structural Missing
99999999	Unknown

Code:

xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx); Structural missing = 88 for mo&day; 8888 for year; Unknown = 99 for mo&day; 9999 for year

Code:

xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx); Structural missing = 88 for mo&day; 8888 for year; Unknown = 99 for mo&day; 9999 for year

Code:

xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx); Structural missing = 88 for mo&day; 8888 for year; Unknown = 99 for mo&day; 9999 for year

Section / Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.13	**Indication for exam**	1	85	85	

Indication for exam should be imputed if not directly available. Exams that are "Asymptomatic, history of implants" should be coded as routine screening and breast implants should be coded in the corresponding Patient Information record. Exams that are "Pre-reduction mammoplasty" should also be coded as routine screening. Exams that are "Review of outside study" or "Pre-radiation therapy" should not be sent to the SCC.

(indicate)

Code:

1	Routine screening (asymptomatic)
2	Additional evaluation of recent mammogram
3	Short interval follow-up
4	Evaluation of breast problem (symptomatic)
5	Other procedures
8	Structural missing
9	Unknown

II.14	**Imputed indication for exam**	1	86	86	

Indicator variable for "II.13 - Indication for exam". This variable indicates whether or not the indication for exam variable was imputed. If unable to tell if information was imputed, use code 9.

(indicimp)

Code:

0	No
1	Yes (imputed)
8	Structural missing
9	Unknown

II.15	**Mammogram (film)**	1	87	87	06/06/2001

Mammogram performed by machine that acquires the breast image on film. This includes film screen mammograms that are later digitized. Since most mammograms are performed using this type of machine, this variable should be coded more predominantly than the Digital mammogram field (II.16).

(mamm)

Code:

0	No (other radiologic or non-imaging procedure)
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.16	**Mammogram (digital)**	1	88	88	06/06/2001

Mammogram performed by machine that acquires the breast image electronically and stores it directly into a computer. This does not include film screen mammograms that have been digitized. If it is certain that a mammogram was performed, but uncertain what type of film was used, assume standard mammogram film was used and code variable II.15 Mammogram (film).

(digimamm)

Code:

0	No (other radiologic or non-imaging procedure)
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

II.17	**Routine views**	1	89	89	10/06/2000

Routine views performed during exam (MLO, CC). Routine views that are performed as part of a diagnostic exam should be coded here. Refers to type of views that were used to perform the mammogram. Exams with indication for history of breast augmentation, asympstomatic should be coded as unknown.

(routview)

`Changed variable name from SCREENING to ROUTINE to be less confusing.`

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.18	**Diagnostic views**	1	90	90	10/06/2000

Diagnostic views performed during exam (any views other than MLO or CC, such as spot compression or magnification.) Refers to type of views that were used to perform the mammogram.
(diagview)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

II.19 **Imputed type of views** — 1 | 91 | 91

Indicator variable for either fields II.17 - Routine Views or II.18 - Diagnostic Views. This indicates whether or not either type of view was imputed. If unable to tell if information was imputed, code as 9.
(viewimp)

Code:

0	No
1	Yes (imputed)
8	Structural missing
9	Unknown

II.20 **Used additional views** — 1 | 92 | 92

Use code 1 if additional views were done at this visit or later to reach the assessment for this record. If II.18 - Diagnostic views is coded as being performed, this should be 1.
(useaddv)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit

II RADIOLOGIC INFORMATION

II.21 Ultrasound

1 93 93

Code as 1-5 if stand-alone ultrasound performed or taken in conjunction with routine or diagnostic mammographic views. This is not being collected consistently across sites. If a radiology visit results in a BI-RADS outcome, it should appear in radiology. Otherwise, it should be reported as Additional Imaging Follow-up.

(ultrasnd)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

II.22 Used ultrasound

1 94 94

Code as 1 if an ultrasound was done at this visit or later to reach the assessment for this record. If II.21 Ultrasound is coded as being perfomed, code 1.

(useultra)

```
Code as 1 if ultrasound was used to complete the mammographic assessment
```

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.23	**Other radiologic events**	2	95	96	10/12/2000

If information on other radiologic procedures is not being collected, use code 88 (not 00). Scintigraphy should be coded as nuclear medicine. All image-guided biopsies should be recorded in the Biopsy/Surgery Follow-up file. A record may also exist in pathology.

(otherrad)

Note that Biopsy and FNA done in conjunction with radiology should be entered in BIOPSY/SURGERY FOLLOW-UP INFORMATION.

Code:

00	No
01	MRI
02	Xray
03	Chest Xray
04	Cat Scan (CT)
05	Nuclear Medicine
80	Yes, other or not otherwise specified
88	Structural missing
99	Unknown

II.24	**Other procedures**	2	97	98	10/06/2000

(nonimage)

Code:

00	None
01	Needle localization
02	Core biopsy
03	Cyst aspiration
04	Fine needle aspiration
05	Ductogram
80	Other
88	Structural missing
99	Unknown

Section / Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.25	**Density**	1	99	99	11/01/2005

Breast density. If left and right breasts differ, use breast with higher density. The code descriptions 1-4 shown below reflect the BI-RADS coding system. The following comments only apply if the BI-RADS coding system is NOT used. If the Wolfe system is used, the data should be coded as follows: 1=Fatty; 2=Average; 3=Dense, but normal for age; 4=Highly dense. If a Dichotomous classification is used (dense/not dense) then codes 5 and 6 should be used. If Site G, Form IB is used, the data should be coded as follows: 1=Fatty; 2=Scattered densities; 3=Average (heterogeneous); 4=Dense. If MRS is used, the data should be coded as follows: 1=Fatty; 2=Average; 3=Dense; 4=Very dense. If a classification system not described above is used, let the SCC know how the data are coded.

(density)

Code:

1	Almost entirely fat(<25% fibroglandular)
2	Scattered fibroglandular densities(25%-50%)
3	Heterogeneously dense(51%-75%)
4	Extremely dense(>75%)
5	Fat or scattered (codes 1 or 2)
6	Dense (codes 3 or 4)
8	Structural missing
9	Unknown

II.26	**Comparison film**	1	100	100	

Films of previous mammograms available at time of exam?

(compfilm)

Code:

0	No
1	Yes, no significant changes
2	Yes, significant changes
3	Yes, not otherwise specified
8	Structural missing
9	Unknown

II.27	**Comparison date**	8	101	108	10/06/2000

Date of comparison mammogram - use most recent if more than one. 9's should be used (99999999) if this variable is not applicable.

(compdate)

Code:

xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx); Structural missing = 88 for mo&day; 8888 for year; Unknown = 99 for mo&day; 9999 for year

Section Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.28	**Physical findings**	1	109	109	05/11/2004

Code 0 should be used when the radiologist does not have any information about physical findings. Code 1 should be used when there are no physical findings and that information is made available to the radiologist. Code 2 should be used when there are physical findings and that information is made available to the radiologist. Code 3 should be used when it is unknown if there were physical findings, but the information was made available to the radiologist. Code 9 should be used when it is unknown if the radiologist had any information about physical findings.

(physfind)

Code:

0	No info available for exam
1	Info available, No physical findings
2	Info available, Yes physical findings - laterality NOS
3	Info available, Unknown if physical findings
4	Info not available, Not aware of physical findings
5	Right breast only
6	Left breast only
7	Bilateral (both breasts)
8	Structural missing
9	Unknown

II.29 **Assessment overall** 1 110 110 05/11/2004

Assessment at person level - If the assessment is the same for each breast, code that assessment. If the assessment for each breast is different, code the higher assessment using the following order: 1, 2, 3, 0, 4, 5, 6. If only woman-level information is known, the overall assessment should be coded 0-6 and the left and right assessments should be coded as 8. If both a mammogram and ultrasound are done on the same day and a single BI-RADS assessment is given then one record should be created. If the mammogram and ultrasound each receive a BI-RADS assessment then two separate records should be created. In general, a separate record should be created for each exam that receives a BI-RADS assessment.

(assestot)

Please see examples on website at http://www.bcsc-scc.org/dbmdoc1.htm#radi or SCC Appendix 12

Code:

0	Need additional imaging evaluation
1	Negative
2	Benign finding
3	Probably benign finding
4	Suspicious abnormality
5	Highly suggestive of malignancy
6	Known Malignancy
8	Structural missing (breast not imaged)
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit

II RADIOLOGIC INFORMATION

II.30 Assessment right

1 111 111 05/11/2004

Assessment of right breast. If only overall assessment is known (not breast-specific), code as 8. If a unilateral exam is done, the assessment for the breast not imaged should be coded 8. If only woman-level information is known, the overall assessment should be coded 0-6 and the left and right assessments should be coded 8. If both a mammogram and ultrasound are done on the same day and a single BI-RADS assessment is given then one record should be created. If the mammogram and ultrasound each receive a BI-RADS assessment then two separate records should be created. In general, a separate record should be created for each exam that receives a BI-RADS assessment.

(assessr)

`Please see examples on website at http://www.bcsc-scc.org/dbmdoc1.htm#radi or SCC Appendix 12`

Code:

0	Need additional imaging evaluation
1	Negative
2	Benign finding
3	Probably benign finding
4	Suspicious abnormality
5	Highly suggestive of malignancy
6	Known Malignancy
8	Structural missing (breast not imaged)
9	Unknown

II.31 Assessment left

1 112 112 05/11/2004

Assessment of left breast. If only overall assessment is known (not breast-specific), code as 8. If a unilateral exam is done, the assessment for the breast not imaged should be coded 8. If only woman-level information is known, the overall assessment should be coded 0-6 and the left and right assessments should be coded 8. If both a mammogram and ultrasound are done on the same day and a single BI-RADS assessment is given then one record should be created. If the mammogram and ultrasound each receive a BI-RADS assessment then two separate records should be created. In general, a separate record should be created for each exam that receives a BI-RADS assessment.

(assessl)

`Please see examples on website at http://www.bcsc-scc.org/dbmdoc1.htm#radi or SCC Appendix 12`

Code:

0	Need additional imaging evaluation
1	Negative
2	Benign finding
3	Probably benign finding
4	Suspicious abnormality
5	Highly suggestive of malignancy
6	Known Malignancy
8	Structural missing (breast not imaged)
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.32	**Recommend normal interval follow-up**	1	113	113	

Recommendation made for normal interval follow-up. If site has no information on laterality then code as 0 or 5. Do not send any pending records unless waiting for a comparison film that never happens. If the comparison films do not materialize, 'request old films for comparison' should be coded unknown for all recommendations.

(recnorm)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

II.33 **Recommended normal interval follow-up length** 2 114 115

If a follow-up time is not given but a standard interval is used, such as 1 year, code 01. Do not send any pending records unless waiting for a comparison film that never happens. If the comparison films do not materialize, 'request old films for comparison' should be coded unknown for all recommendations.

(normlen)

Code:

00	No
01	1 year
02	2 years
03	Return at age 35 or age 40
04	Return at age 50
xx	Actual number of months (valid range 05-87)
88	Structural missing
99	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.34	**Recommend short term follow-up**	1	116	116	

Recommendation made for short-term follow-up mammography. If site has no information on laterality then code as 0 or 5. Do not send any pending records unless waiting for a comparison film that never happens. If the comparison films do not materialize, 'request old films for comparison' should be coded unknown for all recommendations.

(recfu)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

II.35	**Recommended short interval follow-up length**	2	117	118	

In months - If a follow-up time is not given but a standard interval is used, such as 6 months, this would be coded 06. Do not send any pending records unless waiting for a comparison film that never happens. If the comparison films do not materialize, 'request old films for comparison' should be coded unknown for all recommendations.

(shortlen)

Code:

00	No
xx	Actual number of months (valid range 01-87)
88	Structural missing
99	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.36	**Recommend additional views**	1	119	119	

Recommendation made for additional mammographic views. If site has no information on laterality then code as 0 or 5. Do not send any pending records unless waiting for a comparison film that never happens. If the comparison films do not materialize, 'request old films for comparison' should be coded unknown for all recommendations.

(recaddv)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

II.37	**Recommend ultrasound**	1	120	120	

Recommendation made for ultrasound. If site has no information on laterality then code as 0 or 5. Do not send any pending records unless waiting for a comparison film that never happens. If the comparison films do not materialize, 'request old films for comparison' should be coded unknown for all recommendations.

(recultra)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.38	**Recommend nuclear medicine**	1	121	121	

Recommendation made for nuclear medicine. If site has no information on laterality then code as 0 or 5. Do not send any pending records unless waiting for a comparison film that never happens. If the comparison films do not materialize, 'request old films for comparison' should be coded unknown for all recommendations.

(recnucmd)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

II.39 **Recommend MRI** 1 122 122

Recommendation made for magnetic resonance imaging. If site has no information on laterality then code as 0 or 5. Do not send any pending records unless waiting for a comparison film that never happens. If the comparison films do not materialize, 'request old films for comparison' should be coded unknown for all recommendations.

(recmri)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit

II RADIOLOGIC INFORMATION

II.40 Recommend for clinical exam

1 123 123

Recommendation made for clinical exam. If cannot distinguish between clinical exam and surgical consult, code as clinical exam. If site has no information on laterality then code as 0 or 5. Do not send any pending records unless waiting for a comparison film that never happens. If the comparison films do not materialize, 'request old films for comparison' should be coded unknown for all recommendations.

(recexam)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

II.41 Recommend surgical consult

1 124 124

Recommendation made for surgical consult. If cannot distinguish between surgical consult and biopsy, code as surgical consult. If cannot distinguish between clinical exam and surgical consult, code as clinical exam. If site has no information on laterality then code as 0 or 5. Do not send any pending records unless waiting for a comparison film that never happens. If the comparison films do not materialize, 'request old films for comparison' should be coded unknown for all recommendations.

(recsurg)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.42	**Recommend FNA**	1	125	125	02/08/2005

Recommendation made for fine needle aspiration. If site has no information on laterality then code as 0 or 5. Do not send any pending records unless waiting for a comparison film that never happens. If the comparison films do not materialize, 'request old films for comparison' should be coded unknown for all recommendations. Include cyst aspiration in this variable.

(recfna)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

II.43	**Recommend biopsy**	1	126	126	

Recommendation made for biopsy. If cannot distinguish between surgical consult and biopsy, code as surgical consult. If site has no information on laterality then code as 0 or 5. Do not send any pending records unless waiting for a comparison film that never happens. If the comparison films do not materialize, 'request old films for comparison' should be coded unknown for all recommendations. "Biopsy should be considered" should be coded as recommendation for biopsy.

(recbiop)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

Section / Field Number	Width	Character Position Start	Stop	Last Edit
II RADIOLOGIC INFORMATION				
II.44 **Recommend further work-up**	1	127	127	

Recommendation made for further work-up, but non-specific. Code only if no additional recommendations about biopsy, FNA, surgical evaluation are made. Code as 0 if other recommendations were made above. Code 1-5 only if a non-specific recommendation for follow-up is made. Code as 0 or 5 if site does not specify laterality. Do not send any pending records unless waiting for a comparison film that never happens. If the comparison films do not materialize, 'request old films for comparison' should be coded unknown for all recommendations. "Ductography" should be coded as recommendation for further work-up.

(recwrkup)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

II.45 **Linked**	1	128	128	10/06/2000

Linkage between assessment and recommendation. Note: This variable might be the same for all mammograms at a particular radiology center, but could change over time at that center. A system is considered linked if the software automatically fills in the recommendation or an assessment - even if software allows the assessment or recommendation to be overridden.

(linked)

Code:

0	No linkage
1	Recommendation based on assessment
2	Assessment based on recommendation
3	Assessment and recommendation linked NOS
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.46	**Facility**	2	129	130	

Type of facility where examination was performed. Use code "10 - HMO, PPO, etc..." only if that is the only facility information known. If you know the type of facility (e.g. hospital) happens to be within an HMO, code as "01 - Hospital", etc.

(facility)

Code:

01	Hospital
02	Radiology private office - multiple modalities
03	Radiology private office - freestanding breast center
04	Comprehensive cancer center
05	Hospital outpatient center
06	OB/GYN office
07	Primary care office; e.g. family practice, internal medicine
08	Oncology office
09	Multispecialty clinic
10	HMO, PPO, etc…
11	Mobile unit
12	Others
88	Structural missing
99	Unknown

II.47	**Breast Density Coding System**	1	131	131	05/11/2004

Coding system used to classify Breast Density as described in variable II.25

(denscode)

Code:

1	BI-RADS
2	Wolfe system
3	Dichotomous classification (dense/not dense)
4	Site G, Form IB
5	MRS
6	Other
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.48	**Computer Aided Detection** **Computer Aided Detection Used: CAD** (compaid)	1	132	132	05/11/2004

Code:

0	No
1	Standard Views
2	Additional Views
3	Both standard and additional views
4	Views NOS
8	Structural Missing
9	Unknown

II.49	**Radiology Data Entry System** **Data entry system used to collect information for radiology file** (entrysys)	2	133	134	05/11/2004

Code:

01	Cerner
02	Chase & Trace
03	CMDS
04	Home grown db
05	IDXrad
06	Insight
07	MammoManager
08	MediTech
09	MRS
10	Penrad
11	Progris
12	RIS
13	Scanned Data / Teleform
14	Siemens
15	System Wide db
16	VitalWorks
17	Other Billing System
18	VMRS
87	Other
88	Structural Missing
99	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.50	**BI-RADS Assessment Category - Suspicion Level - Overall**	1	135	135	02/08/2005

Code if the overall assessment is a BI-RADS 4 and a suspicion level is given. If overall assessment is not equal to 4, code as 0. This variable corresponds to BI-RADS 4 suspicion level from ACR 4th edition guidelines. Facilities will probably begin collecting codes 4a-4c at different times. If it is known that facilities do not collect codes 4a-4c, then code as 8. If it is known that facilities collect suspicion level, use codes 1, 2, 3, or 9 if assessment is 4 and code 0 if assessment is not 4.

(suspover)

Code:

0	Not applicable
1	4A - low
2	4B - moderate
3	4C - high
8	Structurally missing
9	Unknown

II.51	**BI-RADS Assessment Category - Suspicion Level - Right**	1	136	136	02/08/2005

Code if the BI-RADS assessment right is a 4 and a suspicion level is given. If right assessment is not equal to 4, code as 0. This variable corresponds to BI-RADS 4 suspicion level from ACR 4th edition guidelines. Facilities will probably begin collecting codes 4a-4c at different times. If it is known that facilities do not collect codes 4a-4c, then code as 8. If it is known that facilities collect suspicion level, use codes 1, 2, 3, or 9 if assessment is 4 and code 0 if assessment is not 4.

(susprght)

Code:

0	Not applicable
1	4A - low
2	4B - moderate
3	4C - high
8	Structurally missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.52	**BI-RADS Assessment Category - Suspicion Level - Left**	1	137	137	02/08/2005

Code if the BI-RADS assessment left is a 4 and a suspicion level is given. If left assessment is not equal to 4, code as 0. This variable corresponds to BI-RADS 4 suspicion level from ACR 4th edition guidelines. Facilities will probably begin collecting codes 4a-4c at different times. If it is known that facilities do not collect codes 4a-4c, then code as 8. If it is known that facilities collect suspicion level, use codes 1, 2, 3, or 9 if assessment is 4 and code 0 if assessment is not 4.

(suspleft)

Code:

0	Not applicable
1	4A - low
2	4B - moderate
3	4C - high
8	Structurally missing
9	Unknown

II.53	**Mass**	1	138	138	02/08/2005

Mammogram finding of a mass.

(mass)

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
II	**RADIOLOGIC INFORMATION**				
II.54	**Calcification** **Mammogram finding of a calcification.** (calcirad)	1	139	139	02/08/2005

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

II.55	**Architectural distortion** **Mammogram finding of architectural distortion.** (archdist)	1	140	140	02/08/2005

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

II.56	**Asymmetric Densities** **Mammogram finding of asymmetric densities.** (asymdens)	1	141	141	02/08/2005

Code:

0	No
1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

Section / Field Number	Width	Start	Stop	Last Edit
II RADIOLOGIC INFORMATION				

II.57 Practice ID

2 142 143 02/14/2006

Unique identifier for practice. A practice is considered a group of radiologists who work together or a group of facilities within the same hospital or organization. Sites should assign each practice a unique number from 1-87. If a site does not collect this information then the field should be coded as structurally missing.

(practice)

Code:

xx	Practice ID (01-87)
88	Structural missing
99	Unknown

II.58 Double read

1 144 144 02/14/2006

Denotes if the mammogram is read by more than one radiologist.

(dblread)

Code:

0	No
1	Standard Views
2	Additional Views
3	Both standard and additional views
4	Views NOS
8	Structural Missing
9	Unknown

II.59 Second Reader ID

8 145 152 02/14/2006

Unique identifier for second reader. If it is known that the mammogram was read by more than one radiologist then send the encrypted ID of the second reader. If the reader ID is structurally missing or unknown it should not be encrypted. If double-reading is not performed or not collected then code this field as structurally missing.

(readerid2)

In this current format, if both standard and additional views were performed we will not know if there are different radiologists performing the double-reads.

Code:

XXXXXXXX	Encrypted ID
88888888	Structural Missing
99999999	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
III	**ADDITIONAL IMAGING FOLLOW-UP INFORMATION**				
III.1	**Record Type** **Additional Imaging follow-up record** (rectype)	8	1	8	

Code:

IMAGNGFU	Imaging follow-up record. Only one code allowed.

III.2	**Study site** **Unique site identifier** (site)	1	9	9	

Code:

X	Unique assigned letter for your site (Capitalized)

III.3	**Study ID** **Unique person identifier** (studyid)	10	10	19	

Code:

xxxxxxxxxx	Encrypted, unique person identifier for site

III.4	**Information date** **Date information was collected on woman. (Typically date of exam.)** (infodate)	8	20	27	

Code:

xxxxxxxx	Three variables: Mo(xx); Day(xx); Year(xxxx)

III.5	**Imaging procedure sequence** **Code for procedures on the same day.** (imgseq)	1	28	28	

Code:

1	If first procedure on that date, or only procedure on that date.
2	If second procedure on that date
3…	If third procedure on that date, etc…

Section Field Number		Character Position Width	Start	Stop	Last Edit
III	**ADDITIONAL IMAGING FOLLOW-UP INFORMATION**				
III.6	**SCC date** **Date prepared for SCC.** (sccdate)	8	29	36	

Code:

xxxxxxxx	Three variables: Mo(xx); Day(xx); Year(xxxx)

III.7	**Imaging procedure date** **Date imaging was performed.** (imgdate)	8	37	44	

Code:

xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx); Structural missing = 88 for mo&day; 8888 for year; Unknown = 99 for mo&day; 9999 for year

III.8	**Imaging laterality** **Laterality of breast imaging follow-up procedure.** (imglater)	1	45	45	

Code:

1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

III.9	**Imaging procedure type** **Type of imaging procedure performed.** (imgtype)	1	46	46	10/06/2000

Code:

1	Ultrasound
2	MRI
3	Mammogram (result not in BIRADS)
7	Other
8	Structural missing
9	Unknown/Imaging NOS

Section Field Number		Character Position Width	Start	Stop	Last Edit
III	**ADDITIONAL IMAGING FOLLOW-UP INFORMATION**				
III.10	**Imaging result** **Assessment at person level.** (imgrslt)	1	47	47	

Code:

0	Normal
1	Abnormal
2	Inconclusive
3	Pending
8	Structural missing
9	Unknown

III.11	**Recommendation based on imaging result** **Code the most severe (4 = most severe, 1= least severe) if more than one recommendation.** (imgrec)	1	48	48	

Code:

1	Normal interval screen
2	Short interval follow-up
3	Additional evaluation (i.e., further imaging)
4	Surgical consult or biopsy
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
IV	**BIOPSY & SURGERY FOLLOW-UP INFORMATION**				
IV.1	**Record type** **Biopsy / Surgery follow-up record** (rectype)	8	1	8	

Code:

BIOPSYFU	Biopsy / Surgery follow-up record. Only one code allowed

IV.2	**Study site** **Unique site identifier** (site)	1	9	9	

Code:

X	Unique assigned letter for your site (Capitalized)

IV.3	**Study ID** **Unique person identifier** (studyid)	10	10	19	

Code:

xxxxxxxxxx	Encrypted, unique person identifier for site

IV.4	**Information date** **Date information was collected on woman. If source comes from pathology, use date of pathology exam.** (infodate)	8	20	27	

Code:

xxxxxxxx	Three variables: Mo(xx); Day(xx); Year(xxxx)

IV.5	**Biopsy/Surgery procedure sequence** **Code for procedures on the same day.** (bxfuseq)	1	28	28	10/12/2000

Code:

1	If first procedure on that date, or only procedure on that date.
2	If second procedure on that date
3…	If third procedure on that date, etc…

Section Field Number		Character Position Width	Start	Stop	Last Edit
IV	**BIOPSY & SURGERY FOLLOW-UP INFORMATION**				
IV.6	**SCC date** **Date prepared for SCC** (sccdate)	8	29	36	

Code:

xxxxxxxx	Three variables: Mo(xx); Day(xx); Year(xxxx)

IV.7	**Biopsy/Surgery procedure date** **Date biopsy was performed** (bxfudate)	8	37	44	10/12/2000

Code:

xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx); Structural missing = 88 for mo&day; 8888 for year; Unknown = 99 for mo&day; 9999 for year

IV.8	**Biopsy/Surgery laterality** **Laterality of breast biopsy/surgery follow-up procedure.** (bxlater)	1	45	45	10/12/2000

Code:

1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
5	Yes, woman-level information only
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
IV	**BIOPSY & SURGERY FOLLOW-UP INFORMATION**				
IV.9	**Biopsy procedure type**	2	46	47	02/08/2005

Type of biopsy procedure performed. Use code 03 if it is known that a surgical biopsy was performed, but it is unknown if it was excisional, core, or incisional. If non-biopsy surgery was performed (e.g., mastectomy) code as 06. More detail on surgery procedures type is collection in Pathology and Registry. Sites may code ductogram information in the radiology file instead if that is where it has been coded in the past.

(bxfutype)

Code:

01	Excisional biopsy
02	Core biopsy
03	Surgical biopsy NOS (excisional biopsy/core biopsy/incisional biopsy)
04	Fine needle aspiration
05	Cyst aspiration
06	Other surgery (non-biopsy, e.g., mastectomy, partial mastectomy…)
07	Lymph nodes
08	Ductogram
88	Structural missing
99	Unknown

IV.10	**Biopsy/Aspiration guidance**	2	48	49	10/12/2000

Type of guidance used during biopsy/aspiration procedure. For non-biopsy surgery, code as 00.

(bxfuguid)

Code:

00	No guidance
01	Palpation
02	Ultrasound guided
03	Stereotactic guided
04	Mammographic (non-stereotactic) / Needle localization
05	Nuclear Medicine
06	Other
07	Imaging guidance, NOS
88	Structural missing
99	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
IV	**BIOPSY & SURGERY FOLLOW-UP INFORMATION**				
IV.11	**Biopsy/Surgery result**	1	50	50	10/12/2000

Assessment at person level. The following should be coded as benign: Negative, Fibroadenoma, Fibrocystic changes, Atypical, Ductal hyperplasia, Calcification. The following should be coded as Malignant/Probably malignant: LCIS, DCIS, Non-invasive cancer, Invasive, Cancer, NOS (including FNA), and Suspicious. The following should be coded as Inconclusive: Unsatisfactory, Insufficient.
(bxfurslt)

Code:

0	Normal / Benign
1	Malignant/probably malignant
2	Inconclusive
3	Pending
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.1	**Record type** **Carcinoma/Registry record.** (rectype) `Only one code allowed`	8	1	8	02/20/2006

Code:

REGISTRY	Carcinoma/Registry record. Only one code allowed.

VI.2	**Study site** **Unique identifier for study site** (site)	1	9	9	02/20/2006

Code:

X	Unique assigned letter for your site (Capitalized)

VI.3	**Study ID** **Unique person identifier for study site** (studyid)	10	10	19	02/20/2006

Code:

xxxxxxxxxx	Encrypted, unique person identifier for site

VI.4	**Information date** **Same as date of diagnosis if available. If day only is missing then code as 15. If month and day are missing (mm/dd) then code as 06/01.** (infodate)	8	20	27	02/20/2006

Code:

xxxxxxxx	Three variables: Mo(xx); Day(xx); Year(xxxx)

VI.5	**Registry sequence number** **Code for registry records on the same day.** (regseq)	1	28	28	02/20/2006

Code:

1	If first registry record or only registry record on that date
2	If second registry record on that date
3…	If third registry record on that date, etc…
8	Structural missing

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.6	**SCC date**	8	29	36	02/20/2006

Date prepared for SCC

(sccdate)

`Date prepared or sent to SCC - allows corrections in the future`

Code:

xxxxxxxx	Three variables: Mo(xx); Day(xx); Year(xxxx)

VI.7	**County of residence**	3	37	39	02/20/2006

FIPS code for county. (Reference: SEER Program Code Manual, 4th edition, pp. 37, and Appendix A, pp. A1-A12, NAACCR item # 90)

(county)

Code:

xxx	See SCC Data Dictionary Appendix 1

VI.8	**State of residence**	2	40	41	02/20/2006

FIPS code for state. (Reference: NAACCR Standards for Cancer Registries, Vol. II, 10th ed., NAACCR item # 80)

(state)

`Anything coded as 88 should be changed to 99. There is no code 88.`

Code:

xx	See SCC Data Dictionary Appendix 2

VI.9	**Date of birth**	8	42	49	02/20/2006

Cancer registry date of birth. (Reference: SEER Program Code Manual, 4th edition, pp. 42-43, NAACCR item # 240)

(brthdate)

Code:

xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx); Structural missing = 88 for mo&day; 8888 for year; Unknown = 99 for mo&day; 9999 for year

VI.10	**Place of birth**	3	50	52	02/20/2006

(Reference: SEER Program Code Manual, 4th edition, p. 41, and Appendix B, pp. B1-B15, NAACCR item # 250)

(bplace)

Code:

xxx	See SCC Data Dictionary Appendix 3

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.11	**Age at diagnosis**	3	53	55	02/20/2006

Cancer registry age at diagnosis. Typically, exact age in years (truncated) at time of diagnosis. (Reference: SEER Program Code Manual, 4th edition, p. 44, NAACCR item # 230)

(dxage)

Code:

xxx	Actual age
999	Unknown age

VI.12	**Race 1**	2	56	57	02/20/2006

Information comes directly from the cancer registry. This is now one of 5 primary race fields. If there is only one primary race, code it here. Race is coded separately for Spanish/Hispanic origin in field VI.17. (Reference: SEER Program Code Manual, 4th edition, pp. 45-56, NAACCR item # 160).

(carcrace1)

More detail for Asian and Pacific Islander than recorded elsewhere

Code:

xx	See SCC Data Dictionary Appendix 4

VI.13	**Race 2**	2	58	59	02/20/2006

Information comes directly from the cancer registry. This is the second of five primary race fields. If there is only one primary race, code it in Race 1 in field VI.12. Send historical data if available. (Reference: SEER Program Code Manual, 4th edition, pp. 45-56, NAACCR item # 161).

(carcrace2)

Code:

xx	See SCC Data Dictionary Appendix 4

VI.14	**Race 3**	2	60	61	02/20/2006

Information comes directly from the cancer registry. This is the third of five primary race fields. If there is only one primary race, code it in Race 1 in field VI.12. Send historical data if available. (Reference: SEER Program Code Manual, 4th edition, pp. 45-56, NAACCR item # 162).

(carcrace3)

Code:

xx	See SCC Data Dictionary Appendix 4

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.15	**Race 4**	2	62	63	02/20/2006

Information comes directly from the cancer registry. This is the fourth of five primary race fields. If there is only one primary race, code it in Race 1 in field VI.12. Send historical data if available. (Reference: SEER Program Code Manual, 4th edition, pp. 45-56, NAACCR item # 163).

(carcrace4)

Code:

xx	See SCC Data Dictionary Appendix 4

VI.16	**Race 5**	2	64	65	02/20/2006

Information comes directly from the cancer registry. This is the fifth of five primary race fields. If there is only one primary race, code it in Race 1 in field VI.12. Send historical data if available. (Reference: SEER Program Code Manual, 4th edition, pp. 45-56, NAACCR item # 164).

(carcrace5)

Code:

xx	See SCC Data Dictionary Appendix 4

VI.17	**Spanish/Hispanic surname or origin**	1	66	66	02/20/2006

Note that this coding scheme for Spanish or Hispanic surname may differ from that of the Patient Information file because the information came directly from the cancer registry. (Reference: SEER Program Code Manual, 4th edition, p. 57, NAACCR item # 190)

(ssurname)

Code:

0	Non-Spanish/Non-Hispanic
1	Mexican
2	Puerto Rican
3	Cuban
4	South or Central American (except Brazil)
5	Other specified Spanish/Hispanic origin (includes European)
6	Spanish NOS; Hispanic NOS; Latino NOS
7	Spanish surname only
9	Unknown whether Spanish or not

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.18	**Diagnosis date**	8	67	74	02/20/2006

Date of initial diagnosis as recorded by SEER or other cancer registry. If day or month is missing, sites should code them as missing or unknown because the SCC maintains a record of unknown diagnosis dates. (Reference: SEER Program Code Manual, 4th edition, p. 65-68, NAACCR item # 390)

(diagdate)

Code:

xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx); Structural missing = 88 for mo&day; 8888 for year; Unknown = 99 for mo&day; 9999 for year

VI.19	**SEER sequence number**	2	75	76	02/20/2006

Indicates position of this primary cancer with respect to other primary cancers in the same individual. (Reference: SEER Program Code Manual, 4th edition, pp. 69-72, NAACCR item # 380)

(seerseq)

Code:

00	One primary only
01	First of two or more primaries
02	Second of two or more primaries
xx	XX of XX or more primaries (valid range: 03-34)
35	Thirty-fifth of thirty-five or more primaries
99	Unspecified sequence number

VI.20	**Primary site**	3	77	79	02/20/2006

Indicates whether breast cancer is the primary site. Code is usually C50 for breast. Drop any values to the right of the decimal point in C50.x. (Reference: SEER Program Code Manual, 4th edition, pp. 73-77, NAACCR item # 400)

(primsite)

`ICD-O code dropping the digit to the right of the decimal place, C50.x`

Code:

Cxx	Cxx, e.g., C50 for breast - first three characters in SEER four character code.
C99	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.21	**Subsite**	1	80	80	02/20/2006

Indicates where the breast cancer was found. Code is the first digit to the right of the decimal place in C50.x, i.e. if SEER code is C50.4 or C504, use code 4. (Reference: SEER Program Code Manual, 4th edition, pp. 73-77, NAACCR item # 400)

(subscarc)

```
Codes derived from the last digit of the ICD-O breast code C50.x (decimal
dropped by SEER so last character in SEER 4 character code)
```

Code:

0	Nipple
1	Central
2	Upper inner
3	Lower inner
4	Upper outer
5	Lower outer
6	Axillary tail of breast
8	Overlap
9	NOS; unknown

VI.22	**Laterality**	1	81	81	02/20/2006

Indicates which breast had the cancer. (Reference: SEER Program Code Manual, 4th edition, pp. 78-80, NAACCR item # 410)

(latralty)

Code:

0	Not a paired site (should not apply to breast cancer).
1	Right: origin of primary
2	Left: origin of primary
3	Only one side involved, right or left origin unspecified.
4	Bilateral involvement, lateral origin unknown: stated to be single primary
9	Unknown; midline

VI.23	**Morphology ICD-O-2 (though 2000)**	5	82	86	02/20/2006

ICD-O-2 morphology codes for cases diagnosed through 2000. This field consists of 5 digits (4-digit morphology + 1-digit behavior code). Cases diagnosed after 2000 are coded in field VI.24, Morphology ICD-O-3. (Reference: SEER Program Code Manual, 3rd edition, Section IV, Field 05, p. 93, NAACCR item # 419).

(morphlgyO2)

```
ICD-O 2 codes ; equivalent to SNOMED morphology codes with M dropped; Codes such
as 8140/3 are coded as 81403 with the behavior code in the last digit
```

Code:

xxxxx	See SCC Data Dictionary Appendix 5

Section Field Number		Character Position Width	Start	Stop	Last Edit

VI CARCINOMA / REGISTRY INFORMATION

VI.24 Morphology ICD-O-3 (2001+)

5 87 91 02/20/2006

ICD-O-3 morphology codes for cases diagnosed in 2001 or later. Most registries have forward-converted historical data, please send if available. This field consists of 5 digits (4-digit morphology + 1-digit behavior code). Cases diagnosed before 2001 are coded in the field VI.23, Morphology ICD-O-2. (Reference: SEER Program Code Manual, 4th edition, p. 83, NAACCR item # 521).

(morphlgyO3)

Code:

xxxxx	See SCC Appendix 14

VI.25 Grade, differentiation

1 92 92 02/20/2006

If there is more than one grade, the higher grade is used. Grade codes are the same in both ICD-O-2 and ICD-O-3. (Reference: SEER Program Code Manual, 4th edition, pp. 91-97, NAACCR item # 440).

(grade)

Code:

1	Grade I; grade i; grade 1; well-differentiated; differentiated NOS
2	Grade II; grade ii; grade 2; moderately differentiated, moderately well differentiated; intermediate differentiation
3	Grade III; grade iii; grade 3; poorly differentiated; dedifferentiated
4	Grade IV; grade iv; grade 4; undifferentiated; anaplastic
5	T-cell; T-precursor
6	B-cell; Pre-B; B-Precusor
7	Null cell; Non T-non B
8	N K cell (natural killer cell)
9	Cell type not determined, not stated or not applicable

VI.26 Diagnostic confirmation

1 93 93 02/20/2006

Records the best method used to confirm the presence of the cancer being reported. (Reference: SEER Program Code Manual, 4th edition, p. 81, NAACCR item # 490).

(diagconf)

Code:

1	Positive histology
2	Positive cytology, no positive histology
4	Positive microscopic confirmation, method not specified
5	Positive laboratory test/marker study
6	Direct visualization without microscopic confirmation
7	Radiography and other imaging techniques without microscopic confirmation
8	Clinical diagnosis only (other than 5, 6 or 7)
9	Unknown whether or not microscopically confirmed

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.27	**Summary Stage (through 2000)**	1	94	94	02/20/2006

Summary Stage 1977 includes cases diagnosed through 2000. Summary staging is the most basic way of categorizing how far a cancer has spread from its point of origin. Summary staging has also been called General Staging, California Staging, and SEER Staging. Summary staging uses all information available in the medical record; in other words, it is a combination of the most precise clinical and pathological documentation of the extent of disease. SEER Summary Stage 1977 is limited to information available within 2 months of the diagnosis date and should be assigned according to the SEER Summary Stage Guide 1977. (Reference: SEER 4th Edition, pp. 166, NAACCR item # 760).

(sumstage)

Code:

0	In situ
1	Localized only
2	Regional, direct extension only
3	Regional, regional lymph nodes only
4	Regional, direct extension and regional lymph nodes
5	Regional, NOS
7	Distant
8	Not applicable
9	Unstaged

VI.28	**Summary Stage (2001+)**	1	95	95	02/20/2006

Summary Stage 2000 includes cases diagnosed in 2001 or later. Should include all information available through completion of surgery(ies) in the first course of treatment or within 4 months of diagnosis in the absence of disease progression, whichever is longer. Summary stage 2000 is assigned according to SEER Summary Staging Manual 2000. (Reference: SEER 4th Edition, pp. 167, NAACCR item # 759).

(sumstg2000)

Code:

0	In situ
1	Localized only
2	Regional, direct extension only
3	Regional, regional lymph nodes only
4	Regional, direct extension and regional lymph nodes
5	Regional, NOS
7	Distant
8	Not applicable
9	Unstaged

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.29	**TNM source** **AJCC edition used for staging.** (tnmsourc)	1	96	96	02/20/2006

Code:

1	AJCC 1st edition, 1977 (Cancer Staging Manual by the AJCC)
2	AJCC 2nd edition, 1983 (Manual for Staging of Cancer)
3	AJCC 3rd edition, 1988 (1989-1992)
4	AJCC 4th edition, 1992 (1993-1997)
5	AJCC 5th edition, 1997 (1998-2002)
6	AJCC 6th edition. 2002 (2003+)
9	Unknown

VI.30	**TNM Pathologic T (through 2003)** **Codes for the pathologic tumor (T) as defined by AJCC for cases diagnosed through 2003. Evaluates the primary tumor and reflects the tumor size and/or extension as recorded by the physician. See SCC Data Dictionary Appendix 7 for additional codes and details not shown below. For codes consisting of one digit, leave the second space blank. (Reference: NAACCR Standards for Cancer Registries, Vol. II, 10th ed. Also, COC Fords Manual for 2004, NAACCR item # 880).** (tnmtpath)	2	97	98	02/20/2006

Code:

0	T0, No evidence of primary tumor
IS	Tis, Carcinoma in situ (included DCIS, LCIS, and Paget's before 6th edition)
1M	T1mic, Microinvasion 0.1 cm or less in greatest dimension
1	T1, Tumor 2 cm lor less in greatest dimension
1A	T1a, Tumor more than 0.1 cm but not more than 0.5 cm in greatest dimension
1B	T1b, Tumor more than 0.5 cm but not more than 1 cm in greatest dimension
1C	T1c, Tumor more than 1 cm but not more than 2 cm in greatest dimension
2	T2, Tumor more than 2 cm but not more than 5 cm in greatest dimension
3	T3, Tumor more than 5 cm in greatest dimension
4	T4, Tumor of any size with direct extension to (a) chest wall or (b) skin, only as described below
4A	T4a, Extension to chest wall, not including pectoralis muscle
4B	T4b, Edema (including peau d'orange) or ulceration of the skin of the breast, or satellite skin nodules confined to the same breast
4C	T4c, Both T4a and T4b
4D	T4d, Inflammatory carcinoma
X	TX, Primary tumor cannot be assessed
88	NA, Not applicable
(blank)	Not recorded

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.31	**TNM Clinical T (through 2003)**	2	99	100	02/20/2006

Codes for the clinical tumor (T) as defined by AJCC for cases diagnosed through 2003. Evaluates the primary tumor and reflects the tumor size and/or extension as recorded by the physician. See SCC Data Dictionary Appendix 7 for additional codes and details not shown below. For codes consisting of one digit, leave the second space blank. (Reference: NAACCR Standards for Cancer Registries, Vol. II, 10th ed. Also, COC Fords Manual for 2004, NAACCR item # 940).

(tnmtclin)

Code:	
0	T0, No evidence of primary tumor
IS	Tis, Carcinoma in situ (included DCIS, LCIS, and Paget's before 6th edition)
1M	T1mic, Microinvasion 0.1 cm or less in greatest dimension
1	T1, Tumor 2 cm lor less in greatest dimension
1A	T1a, Tumor more than 0.1 cm but not more than 0.5 cm in greatest dimension
1B	T1b, Tumor more than 0.5 cm but not more than 1 cm in greatest dimension
1C	T1c, Tumor more than 1 cm but not more than 2 cm in greatest dimension
2	T2, Tumor more than 2 cm but not more than 5 cm in greatest dimension
3	T3, Tumor more than 5 cm in greatest dimension
4	T4, Tumor of any size with direct extension to (a) chest wall or (b) skin, only as described below
4A	T4a, Extension to chest wall, not including pectoralis muscle
4B	T4b, Edema (including peau d'orange) or ulceration of the skin of the breast, or satellite skin nodules confined to the same breast
4C	T4c, Both T4a and T4b
4D	T4d, Inflammatory carcinoma
X	TX, Primary tumor cannot be assessed
88	NA, Not applicable
(blank)	Not recorded

Section / Field Number	Character Position Width	Start	Stop	Last Edit

VI CARCINOMA / REGISTRY INFORMATION

VI.32 Derived AJCC T (2004+)

2 101 102 02/20/2006

This is the AJCC "T" component that is derived from coded fields, using the CS algorithm, effective with 2004 diagnosis. See SCC Data Dictionary Appendix 7 for additional codes and details not shown below. (Reference: NAACCR Standards for Cancer Registries, Vol. II, 10th ed., NAACCR item # 2940).

(ajcct)

Code:

00	T0, No evidence of primary tumor
05	Tis, Carcinoma in situ (included DCIS, LCIS, and Paget's before 6th edition)
10	T1, Tumor 2 cm lor less in greatest dimension
11	T1mic, Microinvasion 0.1 cm or less in greatest dimension
12	T1a, Tumor more than 0.1 cm but not more than 0.5 cm in greatest dimension
15	T1b, Tumor more than 0.5 cm but not more than 1 cm in greatest dimension
18	T1c, Tumor more than 1 cm but not more than 2 cm in greatest dimension
20	T2, Tumor more than 2 cm but not more than 5 cm in greatest dimension
30	T3, Tumor more than 5 cm in greatest dimension
40	T4, Tumor of any size with direct extension to (a) chest wall or (b) skin, not including pectoralis muscle
41	T4a, Extension to chest wall, not including pectoralis muscle
42	T4b, Edema (including peau d'orange) or ulceration of the skin of the breast, or satellite skin nodules confined to the same breast
43	T4c, Both T4a and T4b
44	T4d, Inflammatory carcinoma
88	NA, Not applicable
99	TX, Primary tumor cannot be assessed

VI.33 Derived AJCC T Descriptor

1 103 103 02/20/2006

This is the AJCC "T Descriptor" component that is derived from coded fields, using the CS algorithm, effective with 2004 diagnosis. (Reference: NAACCR Standards for Cancer Registries, Vol. II, 10th ed., NAACCR item # 2950).

(ajcctdesc)

Code:

c	Clinical stage
p	Pathologic stage
a	Autopsy stage
y	Surgical resection performed after presurgical systemic treatment or radiation; tumor size/extension based on pathologic evidence
N	Not applicable
(blank)	Not derived
0	Not derived

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.34	**TNM Pathologic N (through 2003)**	2	104	105	02/20/2006

Codes for the pathologic nodes (N) as defined by AJCC for cases diagnosed through 2003. Identifies the absence or presence of regional lymph node metastasis and describes the extent of regional lymph node metastasis as recorded by the physician. See SCC Data Dictionary Appendix 7 for additional codes and details not shown below. For codes consisting of one digit, leave the second space blank. (Reference: NAACCR Standards for Cancer Registries, Vol. II, 10th ed. Also, COC Fords Manual, for 2004, NAACCR item # 890).

(tnmnpath)

Code:	
0	N0, No regional LN (lymph node) metastasis
1	N1, Metastasis to movable ipsilateral axillary LN(s)
2	N2, Metastases in ipsilateral axillary LNs fixed or matted, or in clinically apparent ipsilateral internal mammary nodes in the absence of clinically evident axillary LN metastasis
2A	N2a, Metastasis in ipsilateral axillary LNs fixed to one another (matted) or to other structures
2B	N2b, Metastasis only in clinically apparent ipsilateral internal mammary nodes and in the absence of clinically evident axillary LN metastasis
3	N3, Metastasis in ipsilateral infraclavicular LN(s), or in clinically apparent ipsilateral internal mammary LN(s) and in the presence of clinically evident axillary LN metastasis; or metastasis in ipsilateral supraclavicular LN(s)
3A	N3a, Metastasis in ipsilateral infraclavicular LNs
3B	N3b, Metastasis in ipsilateral internal mammary LNs and axillary LNs
3C	N3c, Metastasis in ipsilateral supraclavicular LNs
X	NX, Regional LNs cannot be assessed (e.g., previously removed)
88	Not applicable
(blank)	Not recoded by the physician

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.35	**TNM Clinical N (through 2003)**	2	106	107	02/20/2006

Codes for the clinical nodes (N) as defined by AJCC for cases diagnosed through 2003. Identifies the absence or presence of regional lymph node metastasis and describes the extent of regional lymph node metastasis as recorded by the physician. See SCC Data Dictionary Appendix 7 for additional codes and details not shown below. For codes consisting of one digit, leave the second space blank. (Reference: NAACCR Standards for Cancer Registries, Vol. II, 10th ed. Also, COC Fords Manual, for 2004, NAACCR item # 950).

(tnmnclin)

Code:	
0	N0, No regional LN (lymph node) metastasis
1	N1, Metastasis to movable ipsilateral axillary LN(s)
2	N2, Metastases in ipsilateral axillary LNs fixed or matted, or in clinically apparent ipsilateral internal mammary nodes in the absence of clinically evident axillary LN metastasis
2A	N2a, Metastasis in ipsilateral axillary LNs fixed to one another (matted) or to other structures
2B	N2b, Metastasis only in clinically apparent ipsilateral internal mammary nodes and in the absence of clinically evident axillary LN metastasis
3	N3, Metastasis in ipsilateral infraclavicular LN(s), or in clinically apparent ipsilateral internal mammary LN(s) and in the presence of clinically evident axillary LN metastasis; or metastasis in ipsilateral supraclavicular LN(s)
3A	N3a, Metastasis in ipsilateral infraclavicular LNs
3B	N3b, Metastasis in ipsilateral internal mammary LNs and axillary LNs
3C	N3c, Metastasis in ipsilateral supraclavicular LNs
X	NX, Regional LNs cannot be assessed (e.g., previously removed)
88	Not applicable
(blank)	Not recoded by the physician

Section Field Number		Character Position Width	Start	Stop	Last Edit

VI CARCINOMA / REGISTRY INFORMATION

VI.36 Derived AJCC N (2004+)

2 108 109 02/20/2006

This is the AJCC "N" component that is derived from coded fields, using the CS algorithm, effective with 2004 diagnosis. See SCC Data Dictionary Appendix 7 for additional codes and details not shown below. (Reference: NAACCR Standards for Cancer Registries, Vol. II, 10th ed., NAACCR item # 2960).

(ajccn)

Code:

00	N0, No regional LN (lymph node) metastasis
10	N1, Metastasis to movable ipsilateral axillary LN(s)
20	N2, Metastases in ipsilateral axillary LNs fixed or matted, or in clinically apparent ipsilateral internal mammary nodes in the absence of clinically evident axillary LN metastasis
21	N2a, Metastasis in ipsilateral axillary LNs fixed to one another (matted) or to other structures
22	N2b, Metastasis only in clinically apparent ipsilateral interanl mammary nodes and in the absence of clinically evident axillary LN metastasis
30	N3, Metastasis in ipsilateral infraclavicular LN(s), or in clinically apparent ipsilateral internal mammary LN(s) and in the presence of clinically evident axillary LN metastasis; or metastasis in ipsilateral supraclavicular LN(s)
31	N3a, Metastasis in ipsilateral infraclavicular LNs
32	N3b, Metastasis in ipsilateral internal mammary LNs and axillary LNs
33	N3c, Metastasis in ipsilateral supraclavicular LNs
88	NA, Not applicable
99	NX, Regional LNs cannot be assessed (e.g., previously removed)

VI.37 Derived AJCC N Descriptor

1 110 110 02/20/2006

This is the AJCC "N Descriptor" descriptor dervied from coded fields, using the CS algorithm, effective with 2004 diagnosis. (Reference: NAACCR Standards for Cancer Registries, Vol. II, 10th ed., NAACCR item # 2970).

(ajccndesc)

Code:

c	Clinical stage
p	Pathologic stage
a	Autopsy stage
y	Lymph nodes removed for examination after presurgical systemic treatment or radiation, and lymph node evaluation based on pathologic evidence
N	Not applicable
(blank)	Not derived
0	Not derived

Section / Field Number	Character Position Width	Start	Stop	Last Edit

VI CARCINOMA / REGISTRY INFORMATION

VI.38 TNM Pathologic M (through 2003)

2 111 112 02/20/2006

Codes for the pathologic metastases (M) as defined by AJCC for cases diagnosed through 2003. Identifies the presence or absence of distant metastasis (M) as recorded by the physician. See SCC Data Dictionary Appendix 7 for additional codes and details not shown below. For codes consisting of one digit, leave the second space blank. (Reference: NAACCR Standards for Cancer Registries, Vol. II, 10th ed. Also, COC Fords Manual for 2004, NAACCR item # 900).

(tnmmpath)

Code:

0	M0, No distant metastasis
1	M1, One or more distant metastasis are identified
X	MX, Distant metastasis cannot be assessed
88	NA, Not applicable
(blank)	Not recorded by physician

VI.39 TNM Clinical M (through 2003)

2 113 114 02/20/2006

Codes for the clinical metastases (M) as defined by AJCC for cases diagnosed through 2003. Identifies the presence or absence of distant metastasis (M) as recorded by the physician. See SCC Data Dictionary Appendix 7 for additional codes and details not shown below. For codes consisting of one digit, leave the second space blank. (Reference: NAACCR Standards for Cancer Registries, Vol. II, 10th ed. Also, COC Fords Manual for 2004, NAACCR item # 960).

(tnmmclin)

Code:

0	M0, No distant metastasis
1	M1, One or more distant metastasis are identified
X	MX, Distant metastasis cannot be assessed
88	NA, Not applicable
(blank)	Not recorded by physician

VI.40 Derived AJCC M (2004+)

2 115 116 02/20/2006

This is the AJCC "M" component that is derived from coded fields, using the CS algorithm, effective with 2004 diagnosis. See SCC Data Dictionary Appendix 7 for additional codes and details not shown below. (Reference: NAACCR Standards for Cancer Registries, Vol. II, 10th ed., NAACCR item # 2980).

(ajccm)

Code:

00	M0, Cases in which there is no distant metastasis
10	M1, Cases in which one or more distant metastasis are identified
99	MX, Cases where distant metastasis cannot be assessed
88	NA, Not applicable

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.41	**Derived AJCC M Descriptor**	1	117	117	02/20/2006

This is the AJCC "M Descriptor" component that is derived from coded fields, using the CS algorithm, effective with 2004 diagnosis. (Reference: NAACCR Standards for Cancer Registries, Vol. II, 10th ed., item # 2990).

(ajccmdesc)

Code:

c	Clinical stage
p	Pathologic stage
a	Autopsy stage
y	Pathologic examination of metastatic tissue performed after presurgical systemic treatment or radiation, and extension based on pathologic evidence
N	Not applicable
(blank)	Not derived
0	Not derived

VI.42 **TNM Pathologic Stage Group (through 2003)** 2 118 119 02/20/2006

Codes for the pathologic stage group as defined by AJCC for cases diagnosed through 2003. Identifies the anatomic extent of disease based on the T, N, and M elements as recorded by the physician. See SCC Data Dictionary Appendix 8 for additional codes and details not shown below. For codes consisting of one digit, leave the second space blank. (Reference: NAACCR Standards for Cancer Registries, Vol. II, 10th ed. Also, COC Fords Manual for 2004, NAACCR item # 910).

(tnmpathstg)

Code:

0	Stage 0
1	Stage I
1A	Stage IA
1B	Stage IB
1C	Stage IC
2	Stage II
2A	Stage IIA
2B	Stage IIB
2C	Stage IIC
3	Stage III
3A	Stage IIIA
3B	Stage IIIB
3C	Stage IIIC
4	Stage IV
4A	Stage IVA
4B	Stage IVB
88	Not applicable
99	Unknown
OC	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.43	**TNM Clinical Stage Group (through 2003)**	2	120	121	02/20/2006

Codes for the clinical stage group as defined by AJCC for cases diagnosed through 2003. Identifies the anatomic extent of disease based on the T, N, and M elements as recorded by the physician. See SCC Data Dictionary Appendix 8 for additional codes and details not shown below. For codes consisting of one digit, leave the second space blank. (Reference: NAACCR Standards for Cancer Registries, Vol. II, 10th ed. Also, COC Fords Manual for 2004, NAACCR item # 970).

(tnmclinstg)

Code:	
0	Stage 0
1	Stage I
1A	Stage IA
1B	Stage IB
1C	Stage IC
2	Stage II
2A	Stage IIA
2B	Stage IIB
2C	Stage IIC
3	Stage III
3A	Stage IIIA
3B	Stage IIIB
3C	Stage IIIC
4	Stage IV
4A	Stage IVA
4B	Stage IVB
88	Not applicable
99	Unknown
OC	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				

VI.44 **Derived AJCC Stage Group (2004+)** 2 122 123 02/20/2006

This is the AJCC "Stage Group" component that is derived from the CS codes, using the CS algorithm, effective with 2004 diagnosis. See SCC Data Dictionary Appendix 8 for additional codes and details not shown below. (Reference: NAACCR Standards for Cancer Registries, Vol. II, 10th ed., NAACCR item # 3000).

(ajccstggrp)

Code:	
00	Stage 0
10	Stage I
11	Stage I, NOS
12	Stage IA
15	Stage IB
18	Stage IC
30	Stage II
31	Stage II, NOS
32	Stage IIA
33	Stage IIB
34	Stage IIC
50	Stage III
51	Stage III, NOS
52	Stage IIIA
53	Stage IIIB
54	Stage IIIC
70	Stage IV
71	Stage IV, NOS
72	Stage IVA
73	Stage IVB
88	Not available
90	Unstaged
99	Unknown, error condition

VI.45 **Derived AJCC Conversion Flag** 1 124 124 02/20/2006

Flag to indicate whether the derived AJCC stage was derived from CS or EOD codes. (Reference: NAACCR Standards for Cancer Registries, Vol. II, 10th ed., NAACCR item # 3030).

(ajccconflag)

Code:	
1	AJCC 6th edition derived from Collaborative Staging Manual and Coding Instructions, Version 1.0
2	AJCC 6th edition derived from EOD (prior to 2004)
8	Structural missing
9	Unknown
(blank)	Not derived

Section / Field Number	Width	Start	Stop	Last Edit
VI CARCINOMA / REGISTRY INFORMATION				

VI.46 **Estrogen receptors (through 2003)** 1 125 125 02/20/2006

Tumor marker I - Estrogen receptor status for cases diagnosed through 2003. Data for cases diagnosed in 2004 and later are coded in field VI.47. (Reference: SEER Program Code Manual, 3rd edition, Section IV, Field 07.A, p. 106, NAACCR item # 1150).

(estrecep)

Code:

0	None done (SX)
1	Positive/elevated
2	Negative/normal; within normal limits (S0)
3	Borderline; undetermined whether positive or negative
8	Ordered, but results not in chart
9	Unknown or no information

VI.47 **CS Estrogen receptors (2004+)** 3 126 128 02/20/2006

Collaborative Staging Site-Specific Factor 1- Estrogen Receptor Assay for cases diagnosed in 2004+. Cases diagnosed prior to 2004 are coded in VI.46. (Reference: SEER Program Code Manual, 4th edition, pp. 154-155, and Appendix C, p. C-481, NAACCR item # 2880).

(estrecepcs)

Code:

000	None done (SX)
010	Positive/elevated
020	Negative/normal; within normal limits (S0)
030	Borderline; undetermined whether positive or negative
080	Ordered, but results not in chart
999	Unknown or no information

VI.48 **Progesterone receptors (through 2003)** 1 129 129 02/20/2006

Tumor marker II - Progesterone receptor status for cases diagnosed through 2003. Cases diagnosed in 2004 and later are coded field VI.49. (Reference: SEER Program Code Manual, 3rd edition, Section IV, Field 07.B, p. 108, NAACCR item # 1160).

(prorecep)

Code:

0	None done (SX)
1	Positive/elevated
2	Negative/normal; within normal limits (S0)
3	Borderline; undetermined whether positive or negative
8	Ordered, but results not in chart
9	Unknown or no information

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.49	**CS Progesterone receptors (2004+)**	3	130	132	02/20/2006

Collaborative Staging Site-Specific Factor 1 - Progesterone Receptor Assay for cases diagnosed in 2004+. Cases diagnosed prior to 2004 are coded in VI.48. (Reference: SEER Program Code Manual, 4th edition, pp. 156-157, and Appendix C, p. C-481, NAACCR item # 2890).

(prorecepcs)

Code:

000	None done (SX)
010	Positive/elevated
020	Negative/normal; within normal limits (S0)
030	Borderline; undetermined whether positive or negative
080	Ordered, but results not in chart
999	Unknown or no information

VI.50	**EOD Tumor size (through 2003)**	3	133	135	02/20/2006

This is the EOD tumor size and contains data for cases diagnosed through 2003. Due to coding changes in 1998 SEER, many pathology reports sent to site registries were given an unknown size when there were both invasive and in situ components of the same tumor. SEER is rectifying the Extension fields for breast cancer back to 1998. See SCC Data Dictionary Appendix 10 for more detail. Starting in 2004, tumor size is coded in VI.51. (Reference: SEER EOD-88, 3rd edition, p. 110, NAACCR item # 780).

(tumorsiz)

Sites that calculate AJCC stage and TNM from EOD will need to modify programs to use the Collaborative Staging tumor size field starting with 2004 cases.

Code:

000	No mass; no tumor found; no Paget's disease
001	Microscopic focus or foci only
002	Mammography/xerography diagnosis only with no size given (tumor not clinically
003	<=3 mm (minimum reportable size)
xxx	Actual tumor size in mm (valid range 004-989)
990	>=990 mm (maximum reportable size)
997	Paget's disease of the nipple with no demonstrable tumor
998	Diffuse; widespread: 3/4's more of breast; inflammatory carcinoma
999	Not stated

Section / Field Number	Character Position Width	Start	Stop	Last Edit

VI CARCINOMA / REGISTRY INFORMATION

VI.51 CS Tumor size (2004+)

3 136 138 02/20/2006

Records the largest dimension or diameter of the primary tumor, and is always recorded in millimeters. This is a Collaborative Staging variable and is valid for cases diagnosed in 2004+. This field replaces EOD tumor size which was used for cases diagnosed prior to 2004 and is coded in VI.50. (Reference: SEER Program Code Manual, 4th edition, pp. 126-129, NAACCR item # 2800).

(cstumsz)

Code:

000	No mass/tumor found
xxx	001 - 988 millimeters (code exact size in millimeters)
989	989 millimeters or larger.
990	Microinvasion; microscopic focus or foci only, no size given; described as less than 1 mm
991	Described as less than 1 cm
992	Described as less than 2 cm
993	Described as less than 3 cm
994	Described as less than 4 cm
995	Described as less than 5 cm
996	Mammographic/xerographic diagnosis only, no size given; clinically not palpable
997	Paget's Disease of nipple with no demonstrable tumor
998	Diffuse
999	Unknown; size not stated; not stated in patient record.

VI.52 EOD Extension (through 2003)

2 139 140 02/20/2006

Extension based on EOD for cases diagnosed through 2003. Due to coding changes in 1998 SEER, many pathology reports sent to site registries were given an unknown extent of disease when there were both invasive and in situ components of the same tumor. SEER is rectifying the Extension fields for breast cancer back to 1998. See SCC Data Dictionary Appendix 10 for more detail. Starting in 2004, extension is coded in the Collaborative Staging extension field VI.53. (Reference: SEER EOD-88, 3rd edition, pp. 110-111, NAACCR item # 790).

(extenson)

```
Sites that calculate AJCC stage and TNM from EOD will need to modify programs to
use the Collaborative Staging extension field starting with 2004 cases.
```

Code:

00-99	Code as in SEER EOD manual - See SCC Appendix 10 / Extension

Section / Field Number	Character Position Width	Start	Stop	Last Edit

VI CARCINOMA / REGISTRY INFORMATION

VI.53 CS Extension (2004+)

2 141 142 02/20/2006

This is a Collaborative Staging variable and is valid for cases diagnosed in 2004+. Identifies contiguous growth (extension) of the primary tumor within the organ of origin or its direct extension into neighboring organs. This field replaces EOD extension which was used for cases diagnosed prior to 2004 and is coded in VI.52. See SCC Data Dictionary Appendix 6c for details. (Reference: SEER Program Code Manual, 4th edition, pp. 130-132, and Appendix C, pp. C-476-C478, NAACCR item # 2810).

(extensoncs)

Code:

00-99	Code as in SEER 4th ed. Site-Specific Coding Guidelines - See SCC Appendix 6c, p. C-476

VI.54 EOD Lymph nodes (through 2003)

1 143 143 02/20/2006

Lymph node involvement from EOD for cases diagnosed through 2003. Starting in 2004, this is coded in the Collaborative Staging lymph nodes field VI.55. (Reference: SEER EOD-88, 3rd edition, p. 111, NAACCR item # 810).

(lymphnod)

```
Sites that calculate AJCC stage and TNM from EOD will need to modify programs to
use the Collaborative Staging lymph nodes field starting with 2004 cases.
```

Code:

0	No lymph node involvement
1	Micrometastasis (<=0.2 cm)
2	>0.2-<2.0 cm, no extension beyond capsule
3	<2.0 cm with extension beyond capsule
4	>=2.0 cm
5	Fixed/matted ipsilateral axillary nodes
6	Axillary/regional lymph nodes NOS, lymph nodes NOS
7	Internal mammary node(s), ipsilateral
8	Cervical, NOS; Contralateral/bilateral axillary and/or internal mammary; Supraclavicular (transverse cervical); Other than above
9	Unknown; not stated

VI.55 CS Lymph nodes (2004+)

2 144 145 02/20/2006

This is a Collaborative Staging variable and is valid for cases diagnosed in 2004+. Identifies the regional lymph nodes involved with cancer at the time of diagnosis. This field replaces EOD lymph nodes which was used for cases diagnosed prior to 2004 and is coded in VI.54. See SCC Data Dictionary Appendix 6c for details. (Reference: SEER Program Code Manual, 4th edition, pp. 136-142, and Appendix C, pp. C-478-C479, NAACCR item # 2830).

(lncs)

Code:

00-99	Code as in SEER 4th ed. Site-Specific Coding Guidelines - See SCC Appendix 6c, p. C-478

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				

VI.56 Regional lymph nodes examined by pathologist positive

2 146 147 02/20/2006

Records the exact number of regional lymph nodes examined by the pathologist and found to contain metastases. (Reference: SEER Program Code Manual, 4rd edition, pp. 146-147, NAACCR item # 820).

(posnods)

Codes have changed slightly.

Code:

00	All nodes examined negative
xx	Actual number of positive lymph nodes (valid range 01-89)
90	90 or more nodes positive
95	Positive aspiration of lymph node(s) was performed
97	Positive nodes are documented, but the number is unspecified
98	No nodes examined
99	Unknown if nodes are positive or negative; not applicable

VI.57 Regional lymph nodes examined by pathologist

2 148 149 02/20/2006

The total number of regional lymph nodes that were removed and examined by the pathologist. (Reference: SEER 4th Edition, pp. 148-149, NAACCR item # 830).

(pathnods)

Code:

00	No nodes examined
01	One node examined
02	Two nodes examined
xx	Number of lymph nodes examined (valid range 00-89)
90	Ninety or more regional lymph nodes examined
95	No regional lymph node(s) removed, but aspiration of regional lymph node(s) was performed
96	Regional lymph node removal documented as a sampling and number of lymph nodes unknown/not stated
97	Regional lymph node removal documented as a dissection and number of lymph nodes unknown/not stated
98	Regional lymph nodes surgically removed but number of lymph nodes unknown/not stated and not documented as a sampling or dissection; nodes examined but number unknown
99	UNKNOWN if nodes were examined; not applicable or negative

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.58	**Treatment: Regional lymph nodes examined with surgery (1998-2002)**	2	150	151	02/20/2006

The number of regional lymph nodes examined in conjunction with surgery performed as part of the first-course treatment for cases diagnosed between 1998 and 2002. Starting in 2003, this item is no longer collected - it has been incorporated into scope of regional lymph node surgery field VI.60. (Reference: SEER Program Code Manual, 3rd edition, Section V, Field 02.C and Appendix C, p. C-65, NAACCR item # 1296).

(numbnods)

Code:

00	No regional lymph nodes examined
01	One regional lymph node examined
xx	xx regional lymph nodes examined (valid range 00-89)
90	Ninety or more regional lymph nodes examined
95	No regional lymph node(s) removed, but aspiration of regional lymph node(s) was performed.
96	Regional lymph node removal documented as a sampling and number of lymph nodes examined unknown/not stated
97	Regional lymph node removal documented as dissection and number of lymph nodes examined unknown/not stated
98	Regional lymph nodes surgically removed, but number of lymph nodes examined unknown/not stated
99	Unknown; not stated; death certificate ONLY

VI.59 **Treatment: Scope of regional lymph node surgery (1998-2002)** 1 152 152 02/20/2006

SEER collected this field for cases diagnosed between 1998 and 2002. Data for cases diagnosed 2003+ are located in a field VI.60. (Reference: SEER Program Code Manual, 3rd edition, p. 127 and Appendix C, p. C-65, NAACCR item # 1647).

(lympsurg)

`These are SEER codes.`

Code:

0	No regional lymph nodes removed
1	Sentinel lymph node(s) removed
2	Regional lymph node(s) removed NOS; axillary NOS (Lvls I, II or III lymph nodes); Intramammary NOS
3	Combination of 1 and 2
4	Internal mammary
5	Combination of 4 WITH any of 1-3
9	Unknown; not stated; death certificate ONLY

Section / Field Number	Character Position Width	Start	Stop	Last Edit

VI CARCINOMA / REGISTRY INFORMATION

VI.60 Treatment: Scope of regional lymph node surgery (2003+)

1 153 153 02/20/2006

This field was added as a revision to the SEER 3rd edition manual and is valid for cases diagnosed in 2003+. Describes the surgical removal of distant lymph node(s) or other tissue(s) or organ(s) beyond the primary site. Please send historical data if available. Data for cases diagnosed prior to 2003 is coded in fields VI.58 and VI.59. (Reference: SEER Program Code Manual, 4th edition, pp. 179-180, NAACCR item # 1292).

(lnsurgf)

`These are FORDS codes.`

Code:

0	No regional lymph nodes removed or aspirated; diagnosed at autopsy.
1	Biopsy or aspiration of regional lymph node, NOS
2	Sentinel lymph node biopsy [only]
3	Number of regional lymph nodes removed unknown, not stated; regional lymph nodes removed, NOS
4	1 to 3 regional lymph nodes removed
5	4 or more regional lymph nodes removed
6	Sentinel node biopsy and code 3, 4, or 5 at same time or timing not noted
7	Sentinel node biopsy and code 3, 4, or 5 at different times
9	Unknown or not applicable; death certificate only

VI.61 Treatment: Date first therapy initiated

8 154 161 02/20/2006

If day is unknown, code as 99 and SCC program will set equal to 15th. (Reference: SEER Program Code Manual, 4th edition, pp. 174-176, NAACCR item # 1260)

(dfthdate)

`Coding has been added for structural missing. Seer sites should not try to change SEER codes if unknown.`

Code:

00000000	No cancer-directed therapy or autopsy only
xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx)
88888888	Structural missing = 88 for mo&day; 8888 for year
99999999	Unknown if cancer-directed therapy was administered or death certificate only

Section / Field Number	Character Position Width	Start	Stop	Last Edit

VI CARCINOMA / REGISTRY INFORMATION

VI.62 Treatment: Radiation

1 162 162 02/20/2006

The method of administration of radiation administered as a part of the first course of treatment. (Reference: SEER Program Code Manual, 4th edition, pp. 184-187, NAACCR item # 1360).

(radiaton)

Code:

0	None
1	Beam radiation
2	Radioactive implants
3	Radioisotopes
4	Combination of 1 with 2 or 3
5	Radiation NOS - method or source not specified
7	Refused / Contraindicated / Recommended but not given
8	Radiation recommended, unknown if administered
9	Patient died / Unknown

VI.63 Treatment: Radiation sequence with surgery

1 163 163 02/20/2006

For patients who received both radiation and surgery therapies, the codes indicate the sequencing of radiation and surgery given as part of the first course of treatment. Related fields are VI.60, VI.62, VI.72, and VI.74. Reference: SEER Program Code Manual, 4th edition, p. 188, NAACCR item # 1380).

(radwsurg)

Code:

0	No radiation and/or cancer-directed surgery
2	Radiation before surgery
3	Radiation after surgery
4	Radiation both before and after surgery
5	Intraoperative radiation
6	Intraoperative radiation with other radiation given before or after surgery
9	Sequence unknown, but both surgery and radiation were given

Section / Field Number	Character Position Width	Start	Stop	Last Edit

VI CARCINOMA / REGISTRY INFORMATION

VI.64 Treatment: Chemotherapy

2 164 165 02/20/2006

Chemotherapy given as part of the first course of treatment or the reason chemotherapy was not given. SEER reports this field using FORDS codes and has forward-converted historical data to the new format. The conversion table that maps SEER codes to FORDS codes is in Appendix 15. (Reference: SEER Program Code Manual, 4th edition, pp. 189-191, NAACCR item # 1390).

(chemof)

The codes for this field have changed and the width has increased.

Code:

00	None, chemotherapy was not part of the planned first course of therapy; diagnosed at autopsy
01	Chemotherapy administered as first course therapy, but the type and number of agents is not documented in the patient record.
02	Single agent chemotherapy administered as first course therapy.
03	Multiagent chemotherapy administered as first course therapy.
82	Chemotherapy was not recommended/administered because it was contraindicated due patient risk factors (i.e., comorbid conditions, advanced age).
85	Chemotherapy was not administered because the patient died prior to planned or recommended therapy.
86	Chemotherapy was not administered. It was recommended by the patient's physician, but was not administered as part of the first course of therapy. No reason was stated in the patient record.
87	Chemotherapy was not administered. It was recommended by the patient's physician, but the treatment was refused by the patient, a patient's family member, or the patient's guardian.
88	Chemotherapy was recommended, but it is unknown if it was administered.
99	It is unknown whether a chemotherapeutic agent(s) was recommended or administered because it is not stated in the patient record. Death certificate only.

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.65	**Treatment: Hormone therapy**	2	166	167	02/20/2006

Records whether systemic hormonal agents were administered as first-course treatment at any facility, or the reason they were not given. This field was previously named "Endocrine". SEER reports this field using FORDS codes and has forward-converted historical data to the new format. The conversion table that maps SEER codes to FORDS codes is in Appendix 15. (Reference: SEER Program Code Manual, 4th edition, pp. 192-193, NAACCR item # 1400).

(hormf)

The codes for this field have changed and the width has increased.

Code:

00	None, hormone therapy was not part of the planned first course of therapy; not usually administered for this type and/or stage of cancer; diagnosed at autopsy only.
01	Hormone therapy administered as first course therapy.
82	Hormone therapy was not recommended/administered because it was contraindicated due to patient risk factors (comorbid conditions, advanced age, etc.).
85	Hormone therapy was not administered because the patient died prior to planned or recommended therapy.
86	Hormone therapy was not administered. It was recommended by the patient's physician, but was not administered as part of the first course of therapy. No reason was stated in the patient record.
87	Hormone therapy was not administered. It was recommended by the patient's physician, but this treatment was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in the patient record.
88	Hormone therapy was recommended, but it is unknown if it was administered.
99	It is unknown whether a hormonal agent(s) was recommended or administered. Death certificate only.

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.66	**Treatment: Immunotherapy**	2	168	169	02/20/2006

This filed was previously named "Biological modification". SEER reports this field using FORDS codes and has forward-converted historical data to the new format. The conversion table that maps SEER codes to FORDS codes is in Appendix 15. Note: Marrow and stem cell transplant coding has been moved to the new Hematologic Transplant and Endocrine Procedures, field VI.67. (Reference: SEER Program Code Manual, 4th edition, pp. 194-196, NAACCR item # 1410).

(imunof)

`The codes for this field have changed and the width has increased.`

Code:

00	None, immunotherapy was not part of the planned first course of therapy; not customary therapy for this cancer; diagnosed at autopsy only.
01	Immunotherapy was administered as first course therapy.
82	Immunotherapy was not recommended/administered because it was contraindicated due to patient risk factors (comorbid conditions, advanced age etc.).
85	Immunotherapy was not administered because the patient died prior to planned or recommended therapy.
86	Immunotherapy was not administered; it was recommended by the patient's physician, but was not administered as part of the first-course of therapy. No reason was noted in the patient's record.
87	Immunotherapy was not administered. It was recommended by the patient's physician, but this treatment was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in the patient record.
88	Immunotherapy was recommended, but it is unknown if it was administered.
99	It is unknown if immunotherapy was recommended or administered because it is not stated in patient record; death certificate only cases.

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.67	**Treatment: Hematologic transplant and endocrine procedures (2003+)**	2	170	171	02/20/2006

Records systemic therapeutic procedure administered as part of the first course of treatment. These procedures include bone marrow transplants (BMT) and stem cell harvests with rescue (stem cell transplant), endocrine surgery and/or radiation performed for hormonal effect (when cancer originates at another site), as well as combination of transplants and endocrine therapy. This field was added by SEER in 2003 as a revision to the SEER 3rd edition manual. Historical data is forward converted to these codes from SCC DD 2.5 fields VI.33 and VI.34 per the conversion chart in Appendix 15. (Reference: SEER Program Code Manual, 4th edition, pp. 197-199, NAACCR item # 3250).

(trnsend)

Code:

00	None, transplant procedure or endocrine therapy was not a part of the first course of therapy; not customary therapy for this cancer; diagnosed at autopsy only.
10	Bone marrow transplant, NOS. A bone marrow transplant procedure was administered as first course therapy, but the type was not specified.
11	Bone marrow transplant autologous
12	Bone marrow transplant allogeneic
20	Stem cell harvest (stem cell transplant) as first course therapy.
30	Endocrine surgery and/or endocrine radiation therapy as first course therapy.
40	Combination of transplant procedure with endocrine surgery and/or endocrine radiation (Code 30 in combination with 10, 11, 12, or 20) as first course therapy.
82	Transplant procedure and/or endocrine therapy was not recommended/administered because it was contraindicated due to patient risk factors (comorbid conditions, advanced age, etc.).
85	Transplant procedures and/or endocrine therapy were not administered because the patient died prior to planned or recommended therapy.
86	Transplant procedures and/or endocrine therapy were not administered; it was recommended by the patient's physician, but was not administered as part of first course therapy. No reason was noted in the patient record.
87	Transplant procedures and/or endocrine therapy were not administered; treatment was recommended by the patient's physician but was refused by the patient, a patient's family member, or the patient's guardian. Refusal was noted in the patient record.
88	Transplant procedures and/or endocrine therapy was recommended, but it is unknown if it was administered.
99	It is unknown if a transplant procedure or endocrine therapy was recommended or administered because it is not stated in patient record; death certificate only cases.

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.68	**Treatment: Other cancer-directed therapy**	1	172	172	02/20/2006

Other Therapy identifies other treatment given that cannot be classified as surgery, radiation, systemic therapy, or ancillary treatment. (Reference: SEER Program Code Manual, 4rd edition, pp. 200-201, NAACCR item # 1420)

(oththerp)

Code:

0	None
1	Other
2	Other-experimental
3	Other-double blind
6	Other-unproven
7	Refusal
8	Recommended, unknown if administered
9	Unknown

VI.69 **Treatment: Reconstruction - First course (1998-2002)** 1 173 173 02/20/2006

Reconstruction begun as part of first course of treatment. SEER collected this for cases diagnosed between 1998 and 2002. Starting in 2003, this item is no longer collected by SEER - it has been incorporated into site-specific surgery, field VI.72. Prior to 1998, it was coded field VI.70. Because both of these items are now being collected, no additional re-coding is required. (Reference: SEER Program Code Manual, 3rd edition, Section V, Field 02.E, Appendix C, p. C-66, NAACCR item # 1330).

(seerrec)

```
Sites no longer need to recode based on surgery codes that end in "8" because we
are now collecting pre-1998 surgery as a separate field.
```

Code:

0	No reconstruction/restoration
1	Reconstruction NOS (unknown if flap)
2	Implant; reconstruction WITHOUT flap
3	Reconstruction WITH flap NOS
4	Latissimus dorsi flap
5	Abdominis recti flap
6	Flap NOS + implant
7	Latissimus dorsi flap + implant
8	Abdominis recti + implant
9	Unknown; not stated; death certificate ONLY

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				

VI.70 **Treatment: Site-specific surgery (1988-1997)** 2 174 175 02/20/2006

This data is valid for diagnoses 1988 to 1997. Surgery of primary site describes a surgical procedure that removes and/or destroys tissue of the primary site performed as part of the initial work-up or first course of therapy. See SCC Data Dictionary Appendix 6a for details. Code blank or '99' for structural missing. (Reference: SEER Program Code Manual, 2nd edition, revised June 1992, pp. 113-115, and Appendix C, pp. 190-191, NAACCR item # 1640).

(surg88)

This field was not included in the SCC 2.5 data dictionary and sites were asked to recode this data into field 71 using SEER 3rd edition manual. Recoding is no longer necessary.

Code:

xx	Code as in SEER 2nd ed. Site-Specific Coding Guidelines - See SCC Appendix 6a

VI.71 **Treatment: Site-specific surgery (1998-2002)** 2 176 177 02/20/2006

Surgery of primary site from the 1998 SEER manual. This field applies to diagnoses between 1998 and 2002. SEER has three separate fields that code for surgery of primary site for three different time periods: 2003+, 1998-2002, and pre-1998. The SCC is now requesting that sites send all three fields as collected. If historical data is available, then please send it. The other two surgery of primary site fields are VI.70 and VI.72. (Reference: SEER Program Code Manual, 3rd edition, pp. 124-126, Appendix C, pp. 63-64, NAACCR item # 1646).

(surgery)

The SCC previously requested that sites modify codes for cancers prior to 1998 to conform to the 1998 standards. This has changed.

Code:

xx	See SCC Data Dictionary Appendix 6b

VI.72 **Treatment: Site-specific surgery (2003+)** 2 178 179 02/20/2006

Surgery of primary site describes a surgical procedure that removes and/or destroys tissue of the primary site performed as part of the initial work-up or first course of therapy. This field was added by SEER in 2003 as a revision to the SEER 3rd edition manual. This field is valid for cases diagnosed in 2003+. Please send historical data if available. See SCC Data Dictionary Appendix 6c for details. (Reference: SEER Program Code Manual, 4th edition, pp. 177-178, and Appendix C, pp. C-485-C486, NAACCR item # 1290).

(surgf)

These are FORDS codes.

Code:

xx	Code as in SEER 4th ed. Site-Specific Coding Guidelines - See SCC Appendix 6c, p. C-485

Section / Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.73	**Treatment: Surgery other (1998-2002)**	1	180	180	02/20/2006

Surgery of other regional sites, distant sites, or distant lymph nodes. SEER collected this field for cases diagnosed between 1998 and 2002. Data for cases diagnosed 2003+ are located in a new field (SCC field VI.74). (Reference: SEER Program Code Manual, 3rd edition, Section V, Field 02.D, Appendix C, p. C-66, NAACCR item # 1648).

(surgoth)

`These are SEER codes.`

Code:

0	None; no surgery to other regional or distant sites
1	Surgery to other site(s) or node(s), NOS; unknown if regional or distant
2	Other regional site(s)
3	Distant lymph node(s)
4	Distant site(s)
5	Removal of involved contralateral breast (single primary only)
6	Combination of 4 or 5 WITH 2 or 3
9	Unknown; not stated; death certificate ONLY

VI.74	**Treatment: Surgery other (2003+)**	1	181	181	02/20/2006

Describes the surgical removal of distant lymph node(s) or other tissue(s) or organ(s) beyond the primary site. This field was added by SEER in 2003 as a revision to the SEER 3rd edition manual. Removal of involved contralateral breast now coded in site specific surgery. This field is valid for cases diagnosed in 2003+. Please send historical data if available. Data for cases diagnosed prior to 2003 is coded in SCC field VI.73. (Reference: SEER Program Code Manual, 4th edition, pp. 181, NAACCR item # 1294).

(surgothf)

`These are FORDS codes.`

Code:

0	None; diagnosed at autopsy
1	Nonprimary surgical procedure performed
2	Nonprimary surgical procedure to other regional sites
3	Non-primary surgical procedure to distant lymph node(s)
4	Nonprimary surgical procedure to distant site
5	Combination of codes 2, 3, or 4
9	Unknown; death certificate only

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.75	**Her2 / Neu**	1	182	182	02/20/2006

If Her2 Neu information is collected by the cancer registry, code here. If this information is not collected, code as blank.

(her2neur)

Code:

0	Not done
1	Positive
2	Negative
3	Borderline
8	Ordered, results not in chart
9	Unknown or no information
(blank)	Not collected

VI.76	**Derived SEER Summary Stage 1977**	1	183	183	06/29/2006

This item is the derived "SEER Summary Stage 1977" from the CS algorithm (or EOD codes) effective with 2004 diagnosis. SEER # 3010

(sumstaged)

Code:

(blank)	Processing error (no storage code needed)
blank	None (internal use only, no storage code needed)
0	In situ
1	Localized
2	Regional, direct extension
3	Regional, lymph nodes only
4	Regional, extension and nodes
5	Regional, NOS
7	Distant
8	Not applicable
9	Unknown/Unstaged

Section Field Number		Character Position Width	Start	Stop	Last Edit
VI	**CARCINOMA / REGISTRY INFORMATION**				
VI.77	**Derived SEER Summary Stage 2000**	1	184	184	06/29/2006

This item is the derived "SEER Summary Stage 2000" from the CS algorithm (or EOD codes) effective with 2004 diagnosis. SEER # 3020.

(sumstg2000d)

Code:

(blank)	Processing error (no storage code needed)
blank	None (internal use only, no storage code needed)
0	In situ
1	Localized
2	Regional, direct extension
3	Regional, lymph nodes only
4	Regional, extension and nodes
5	Regional, NOS
7	Distant
8	Not applicable
9	Unknown/Unstaged

Section Field Number		Character Position Width	Start	Stop	Last Edit
VII	**DEATHS & MALIGNANCY FOLLOW-UP INFORMATION**				
VII.1	**Record type** **Malignancy follow-up record.** (rectype) `Only one code allowed`	8	1	8	

Code:

CANCERFU	Deaths and Malignancy follow-up record. Only one code allowed

VII.2	**Study site** **Unique identifier for study site** (site)	1	9	9	

Code:

X	Unique assigned letter for your site (Capitalized)

VII.3	**Study ID** **Unique person identifier for study site** (studyid)	10	10	19	

Code:

xxxxxxxxxx	Encrypted, unique person identifier for site

VII.4	**Information date** **Date information was collected on woman (typically the last follow-up date for this woman).** (infodate)	8	20	27	

Code:

xxxxxxxx	Three variables: Mo(xx); Day(xx); Year(xxxx)

Section Field Number		Character Position Width	Start	Stop	Last Edit
VII	**DEATHS & MALIGNANCY FOLLOW-UP INFORMATION**				

VII.5 Vital status sequence number

1 | 28 | 28 | 03/06/2006

Code for multiple cancer registry records on the same day. If the record comes from the cancer registry then this field should be given the same sequence number as was given in the cancer registry file field VI.5 registry sequence number. If the record comes from another source then this field should be coded as structurally missing.

(mregseq)

Code:

1	If first registry record or only registry record on that date
2	If second registry record on that date
3…	If third registry record on that date, etc…
8	Structural missing

VII.6 SCC date

8 | 29 | 36

Date prepared for SCC

(sccdate)

Date prepared or sent to SCC - allows corrections in the future

Code:

xxxxxxxx	Three variables: Mo(xx); Day(xx); Year(xxxx)

VII.7 Date last follow-up/death

8 | 37 | 44

Date of last follow-up or date of death. SEER typically collects only month and year, but if day is available Data Managers should collect this information. If day is unknown, code as 99.

(fudate)

Code:

xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx); Structural missing = 88 for mo&day; 8888 for year; Unknown = 99 for mo&day; 9999 for year

Section / Field Number	Character Position Width	Start	Stop	Last Edit

VII DEATHS & MALIGNANCY FOLLOW-UP INFORMATION

VII.8 Vital status

2 45 46 03/06/2006

If available, send vital status on women with at least one record in the cancer registry file and the radiology file. This field should be coded if the record comes from the cancer registry. If the record comes from another source then the field should be coded as structurally missing (88). If multiple records exist in the cancer registry and you are choosing to send only one record then code Vital Status as follows:
1) If a women is ever reported dead, regardless of date, code as dead.
2) If there is more than one follow-up date, use the most recent date.
3) If there is more than one "dead" record take death due to breast cancer (05) over all other codes.
4) If death is not due to breast cancer, use the first to occur in the following list: 07, 06, 04, then 08.
5) If there is more than one "alive" record, use the first to occur in the following list: 02, 01, 09 then 03.
Therefore, the overall hierarchy would be as follows, taking the first to occur: 05, 07, 06, 04, 08, 02, 01, 09, 03

(vitlstat)

Code:

01	Alive, no clinical evidence or complete remission of cancer
02	Alive, with ANY cancer
03	Alive, cancer status unknown
04	Dead, no evidence or complete remission of cancer at death
05	Dead, this cancer present at death
06	Dead, no evidence or complete remission of this cancer, but another cancer present at death
07	Dead, cancer present but whether it was this cancer or another cancer cannot be established
08	Dead, unknown whether cancer present at death
09	Alive, no follow-up per request of physician and/or hospital tumor registrar
88	Structural missing - code as in "Status at last Follow-up" VII.9 below

VII.9 Status at last follow-up

1 47 47

Send follow-up status on cancers diagnosed on or after 1/1/94 only. SEER Program Code Manual, 3rd edition, page 145.

(fustat)

```
May be minimally collected by non-SEER sites in lieu of FU status
```

Code:

1	Alive
4	Dead
9	Unknown

Section / Field Number	Character Position Width	Start	Stop	Last Edit

VII DEATHS & MALIGNANCY FOLLOW-UP INFORMATION

VII.10 ICD revision

2 48 49 06/06/2001

ICD code revision used for cause of death. Use the following SEER-based codes. ICD 10 codes should be used for deaths occurring on or after 1/1/99. SEER Program Code Manual, 3rd edition, page 146.

(icdrevis)

Code:

00	Patient alive at last follow-up
01	ICD-10
08	ICDA-8
09	ICD-9
88	Structural missing - ICD revision not used
99	Unknown

VII.11 Primary cause of death

4 50 53 06/06/2001

Primary cause of death should be coded in this field. SEER Program Code Manual, 3rd edition, page 147.

(cod)

Code:

xxxx	Actual code if known
0000	Patient alive at last contact
7777	State death certificate or listing not available
7797	State death certificate or listing available, but underlying cause of death not coded
8888	Structural missing
9999	Unknown

VII.12 Breast cancer present at death

1 54 54 03/06/2006

Was breast cancer listed as a cause of death? If breast cancer was present at death, regardless of whether or not it was the primary cause of death, it should be coded in this field.

(bcdeath)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

Section / Field Number	Width	Start	Stop	Last Edit
VII DEATHS & MALIGNANCY FOLLOW-UP INFORMATION				
VII.13 **Race from death tape - Hispanic origin**	1	55	55	02/15/2005

Hispanic, Spanish or Latina origin information obtained from death tapes should be coded here. Information from the tumor registry should be coded in the Registry file. If record does not come from a death tape, code as structurally missing.

(hispadth)

Code:

0	No
1	Yes
3	No, imputed
4	Yes, imputed
8	Structural missing
9	Unknown

VII.14 **Race from death tape - White** 1 56 56 03/21/2005

White or Caucasian descent information obtained from death tapes should be coded here. Information from the tumor registry should be coded in the Registry file. If record does not come from a death tape, code as structurally missing.

(whitedth)

Code:

0	No
1	Yes
3	No, imputed
4	Yes, imputed
8	Structural missing
9	Unknown

VII.15 **Race from death tape - Black** 1 57 57 03/21/2005

Black or African-American descent information obtained from death tapes should be coded here. Information from the tumor registry should be coded in the Registry file. If record does not come from a death tape, code as structurally missing.

(blackdth)

Code:

0	No
1	Yes
3	No, imputed
4	Yes, imputed
8	Structural missing
9	Unknown

Section / Field Number	Width	Start	Stop	Last Edit
VII DEATHS & MALIGNANCY FOLLOW-UP INFORMATION				
VII.16 **Race from death tape - Asian**	1	58	58	03/21/2005

Asian descent (Chinese, Japanese, Filipina, Vietnamese, other Asian) information obtained from death tapes should be coded here. Information from the tumor registry should be coded in the Registry file. If record does not come from a death tape, code as structurally missing.

(asiandth)

Code:

0	No
1	Yes (Asian)
2	Asian/Pacific Islander NOS
3	No, imputed
4	Yes, imputed
8	Structural Missing
9	Unknown

VII.17 **Race from death tape - Native Hawiian / Pacific Islander** 1 59 59 03/21/2005

Native Hawaiian or other Pacific Islander information obtained from death tapes should be coded here. Information from the tumor registry should be coded in the Registry file. If record does not come from a death tape, code as structurally missing.

(hawpidth)

Code:

0	No
1	Yes
3	No, imputed
4	Yes, imputed
8	Structural missing
9	Unknown

VII.18 **Race from death tape - American Indian / Alaska Native** 1 60 60 03/21/2005

American Indian or Alaska Native information obtained from death tapes should be coded here. Information from the tumor registry should be coded in the Registry file. If record does not come from a death tape, code as structurally missing.

(indaldth)

Code:

0	No
1	Yes
3	No, imputed
4	Yes, imputed
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
VII	**DEATHS & MALIGNANCY FOLLOW-UP INFORMATION**				
VII.19	**Race from death tape - Other**	1	61	61	03/21/2005

Race other than identified above, information obtained from death tapes should be coded here. Information from the tumor registry should be coded in the Registry file. If record does not come from a death tape, code as structurally missing.

(otherdth)

Code:

0	No
1	Yes
3	No, imputed
4	Yes, imputed
8	Structural missing
9	Unknown

VII.20	**Source of record**	1	62	62	02/14/2006

Source of the Death & Malignancy Follow-up record

(dmsource)

Code:

1	Cancer registry
2	Death tapes
3	Other
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
VIII	**PATHOLOGY INFORMATION**				
VIII.1	**Record type** **Pathology record.** (rectype) `Only one code allowed`	8	1	8	

Code:

PATHOLOG	Pathology record. Only one code allowed

VIII.2	**Study site** **Unique identifier for study site** (site)	1	9	9	

Code:

X	Unique assigned letter for your site (Capitalized)

VIII.3	**Study ID** **Unique person identifier for study site** (studyid)	10	10	19	

Code:

xxxxxxxxxx	Encrypted, unique person identifier for site

VIII.4	**Information date** **Date information was collected on woman. Use procedure date if known, otherwise use the pathology report date.** (infodate)	8	20	27	

Code:

xxxxxxxx	Three variables: Mo(xx); Day(xx); Year(xxxx)

Section / Field Number	Character Position Width	Start	Stop	Last Edit

VIII PATHOLOGY INFORMATION

VIII.5 Pathology sequence

1 28 28

Code for multiple tissue samples on the same day. This is a KEY variable that is used to uniquely identify records. If the order is unknown, assign a unique ordering to each record on the same day in a numerical order (1, 2, 3, ...) Codes 8 and 9 are valid codes and should not be used for structural missing and unknown.

(pathseq)

Necessary to distinguish among pathologies on the same day, will almost always be one

Code:

1	If first pathology on that date, or only pathology on that date.
2	If second pathology on that date
3…	If third pathology on that date, etc…

VIII.6 SCC date

8 29 36

Date prepared for SCC

(sccdate)

Date prepared or sent to SCC - allows corrections in the future

Code:

xxxxxxxx	Three variables: Mo(xx); Day(xx); Year(xxxx)

VIII.7 Procedure date

8 37 44

Use date the tissue sample was collected, otherwise use pathology report date. May be the same as information date in VIII.4

(procdate)

Code:

xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx); Structural missing = 88 for mo&day; 8888 for year; Unknown = 99 for mo&day; 9999 for year

VIII.8 Surgery code

2 45 46 05/11/2004

The 1998 SEER manual (SEER Program Manual, 3rd edition, January 1998) surgery codes are being used to describe the type of surgery used to obtain the pathology sample. Although SEER codes are being used, data originating from SEER should not be included. Only records generated by a pathology result should be included. More detailed information on biopsy type may be found in variable VIII.9 Procedure type.

(typeproc)

Code:

xx	See SCC Data Dictionary Appendix 6b

Section Field Number		Character Position Width	Start	Stop	Last Edit

VIII PATHOLOGY INFORMATION

VIII.9 **Procedure type** 2 47 48 05/11/2004

Type of procedure performed. Additional guidance in coding the procedure type variable is located in Appendix 9. More detailed information of code 10 (surgery - not biopsy) may be found in variable VIII.8 Surgery code

(bioptype)

Code:

01	Nipple aspirate / discharge
02	Excisional biopsy
03	Incisional biopsy
04	Core biopsy small diameter
05	Core biopsy large diameter (vacuum assist, e.g., MIBB, mammotome)
06	Core biopsy NOS
07	Surgical biopsy NOS (excisional/core/incisional)
08	Fine needle aspiration
09	Combined image guided and large core removal system (e.g., ABBI)
10	Surgery that was coded in VIII.8
11	Breast reduction only
12	Implant removal
88	Structural Missing
99	Unknown

VIII.10 **Type of guidance** 2 49 50 10/06/2000

(typeguid)

Code:

00	NA or no guidance
01	Palpitation
02	Ultrasound guided
03	Stereotactic guided
04	Mammographic (non-stereotactic)
05	Needle localization
06	Other
88	Structural missing
99	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit
VIII	**PATHOLOGY INFORMATION**				
VIII.11	**Path report date** **Date report was filled out.** (pathdate) `Optional if procedure date reported`	8	51	58	

Code:

xxxxxxxx	Three variables: Month(xx); Day(xx); Year(xxxx); Structural missing = 88 for mo&day; 8888 for year; Unknown = 99 for mo&day; 9999 for year

VIII.12	**Laterality** **Laterality of breast tissue.** (lateral)	1	59	59	

Code:

1	Right breast only
2	Left breast only
3	Unilateral, side not specified
4	Bilateral (both breasts)
8	Structural missing
9	Unknown

VIII.13	**Snomedm1** **Intended to capture M morphology. Sites not using SNOMED code as 88888. Sites using SNOMED but not applicable for this record, code as 99999. If more than 5 M-codes, choose the most serious using the behavior code (last digit). There are three artificial SNOMED codes created to capture pathology findings for which a SNOMED code does not exist. The created codes are 917LN (lymph nodes), 780DF (diabetic fibrous mastopathy), and 780RS (radial scar). These conditions may not be recorded often in pathology. We also record detail about lymph nodes in both the registry and pathology files.** (snomedm1) `First diagnosis`	5	60	64	06/06/2001

Code:

xxxxx	SNOMED M morphology code; 88888=structural missing; 99999=unknown/NA

Section Field Number	Character Position Width	Start	Stop	Last Edit

VIII PATHOLOGY INFORMATION

VIII.14 **Snomedm2** 5 65 69

Intended to capture M morphology. Sites not using SNOMED code as 88888. Sites using SNOMED but not applicable for this record, code as 99999. If more than 5 M-codes, choose the most serious using the behavior code (last digit).

(snomedm2)

`Second diagnosis if present`

Code:

xxxxx	SNOMED M morphology code; 88888=structural missing; 99999=unknown/NA

VIII.15 **Snomedm3** 5 70 74

Intended to capture M morphology. Sites not using SNOMED code as 88888. Sites using SNOMED but not applicable for this record, code as 99999. If more than 5 M-codes, choose the most serious using the behavior code (last digit).

(snomedm3)

`Third diagnosis if present`

Code:

xxxxx	SNOMED M morphology code; 88888=structural missing; 99999=unknown/NA

VIII.16 **Snomedm4** 5 75 79

Intended to capture M morphology. Sites not using SNOMED code as 88888. Sites using SNOMED but not applicable for this record, code as 99999. If more than 5 M-codes, choose the most serious using the behavior code (last digit).

(snomedm4)

`Fourth diagnosis if present`

Code:

xxxxx	SNOMED M morphology code; 88888=structural missing; 99999=unknown/NA

VIII.17 **Snomedm5** 5 80 84

Intended to capture M morphology. Sites not using SNOMED code as 88888. Sites using SNOMED but not applicable for this record, code as 99999. If more than 5 M-codes, choose the most serious using the behavior code (last digit).

(snomedm5)

`Fifth diagnosis if present`

Code:

xxxxx	SNOMED M morphology code; 88888=structural missing; 99999=unknown/NA

Section Field Number		Character Position Width	Start	Stop	Last Edit

VIII PATHOLOGY INFORMATION

VIII.18 Snomedd1

6 85 90 05/11/2004

Intended to capture D morphology. If structural missing or unknown, code as 888888 or 999999 rather than leaving blank. In the unlikely event of multiple D codes, code with the following precedence: first, D790364 Galactocele; second D790370 Mammary duct ectasia (fibrocystic changes); third D790300 Benign mammary dysplasia, NOS; fourth, D790400 Macromastia; fifth, D790380 Mazoplasia. Please exclude altogether: D790420 Gynecomastia. Older synonym for mastoplasia = enlargement of the breast. Probably used for reduction mammoplasty but could also be used in men if not sure whether it is gynecomastia.

(snomedd1)

Use for Snomed D codes that require a field length of 6 characters.

Code:

xxxxxx	Intended to capture SNOMED D morphology code; 888888=structural missing; 999999=unknown/NA

VIII.19 Invasive carcinoma

1 91 91 02/14/2006

This field should only include invasive breast carcinomas and should not include lymphomas or sarcomas. If the first four digits of the SNOMED code describe a breast carcinoma and the last digit of the SNOMED code (behavior code) is a 3 (i.e., xxxx3), code as invasive (codes 1-5), otherwise code as 0. SCC will classify for sites, if desired, based on SNOMED codes. Code as 8 if you want the SCC to do this. Sites without SNOMED codes do the following: Code 0 if the tissue does not have this characteristic. Code 1-5 if the tissue does have this characteristic. Code 8 if not collected at all. Code 9 if SNOMEDs are typically collected, but were not collected on this tissue sample. Lymphomas and Sarcomas should be coded as code 0 - NO. For FNA procedures the result should be recorded in variable VIII.30 FNA result and this field should be coded as 8. See SCC Data Dictionary Appendix 11 for a description of how the SNOMED morphology codes are classified.

(invasive)

Specify this field is for breast carcinomas only and should not include lymphomas or sarcomas which are coded elsewhere. Can be directly ascertained or computed from SNOMED codes.

Code:

0	No
1	Invasive - Not otherwise specified
2	Invasive ductal (includes all subtypes of ductal)
3	Invasive lobular
4	Mixed (both ductal and lobular)
5	Other (non-epithelial tumors)
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit

VIII PATHOLOGY INFORMATION

VIII.20 **In situ** 1 92 92 02/20/2006

If the first four digits of the SNOMED code describe a breast carcinoma and the last digit of the SNOMED code (behavior code) is a 2 (i.e., xxxx2), code as in situ (codes 1 - 5), otherwise code as 0. SCC will classify for sites, if desired, based on SNOMED codes. Code as 8 if you want the SCC to do this. Sites without SNOMED codes do the following: Code 0 if the tissue does not have this characteristic. Code 1-5 if the tissue does have this characteristic. Code 8 if not collected at all. Code 9 if SNOMEDs are typically collected, but were not collected on this tissue sample. For FNA procedures the result should be recorded in variable VIII.30 FNA Result and this field should be coded as 8. See SCC Data Dictionary Appendix 11 for a description of how the SNOMED morphology codes are classified.

(insitu)

Can be directly ascertained or computed from SNOMED codes.

Code:

0	No
1	In situ - Not otherwise specified
2	In situ ductal (includes all subtypes of ductal)
3	In situ lobular
4	In situ - both (ductal and lobular)
5	In situ other (non-epithelial tumors)
8	Structural missing
9	Unknown

VIII.21 **Atypical hyperplasia** 1 93 93 02/20/2006

SCC will classify for sites, if desired, based on SNOMED codes. Code as 8 if you want the SCC to do this. Sites without SNOMED codes do the following: Code 0 if the tissue does not have this characteristic. Code 1-5 if the tissue does have this characteristic. Code 8 if not collected at all. Code 9 if SNOMEDs are typically collected, but were not collected on this tissue sample. For FNA procedures the result should be recorded in variable VIII.30 FNA Result and this field should be coded as 8. See SCC Data Dictionary Appendix 11 for a description of how the SNOMED morphology codes are classified.

(atyphyp)

Can be directly ascertained or computed from SNOMED codes.

Code:

0	No
1	Atypical Hyperplasia - not otherwise specified
2	Atypical Hyperplasia ductal (includes all subtypes of ductal)
3	Atypical Hyperplasia lobular
4	Atypical Hyperplasia - both (ductal and lobular)
5	Atypical Hyperplasia other
8	Structural missing
9	Unknown

Section Field Number		Character Position Width	Start	Stop	Last Edit

VIII PATHOLOGY INFORMATION

VIII.22 **Ductal hyperplasia** 1 94 94 02/20/2006

SCC will classify for sites, if desired, based on SNOMED codes. Code as 8 if you want the SCC to do this. Sites without SNOMED codes do the following: Code 0 if the tissue does not have this characteristic. Code 1 if the tissue does have this characteristic. Code 8 if not collected at all. Code 9 if SNOMEDs are typically collected, but were not collected on this tissue sample. For FNA procedures the result should be recorded in variable VIII.30 FNA Result and this field should be coded as 8. See SCC Data Dictionary Appendix 11 for a description of how the SNOMED morphology codes are classified.

(ducthyp)

Can be directly ascertained or computed from SNOMED codes.

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

VIII.23 **Metastatic** 1 95 95 02/20/2006

Refers to tumors known to be metastatic to the breast. SCC will classify for sites, if desired, based on SNOMED codes. Code as 8 if you want the SCC to do this. Sites without SNOMED codes do the following: Code 0 if the tissue does not have this characteristic. Code 1 if the tissue does have this characteristic. Code 8 if not collected at all. Code 9 if SNOMEDs are typically collected, but were not collected on this tissue sample. For FNA procedures the result should be recorded in variable VIII.30 FNA Result and this field should be coded as 8. See SCC Data Dictionary Appendix 11 for a description of how the SNOMED morphology codes are classified.

(metastat)

Can be directly ascertained or computed from SNOMED codes.

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

Section / Field Number	Character Position Width	Start	Stop	Last Edit

VIII PATHOLOGY INFORMATION

VIII.24 **Fibroadenoma** 1 96 96 02/20/2006

SCC will classify for sites, if desired, based on SNOMED codes. Code as 8 if you want the SCC to do this. Sites without SNOMED codes do the following: Code 0 if the tissue does not have this characteristic. Code 1 if the tissue does have this characteristic. Code 8 if not collected at all. Code 9 if SNOMEDs are typically collected, but were not collected on this tissue sample. For FNA procedures the result should be recorded in variable VIII.30 FNA Result and this field should be coded as 8. See SCC Data Dictionary Appendix 11 for a description of how the SNOMED morphology codes are classified.

(fibroad)

Can be directly ascertained or computed from SNOMED codes.

Code:	
0	No
1	Yes
8	Structural missing
9	Unknown

VIII.25 **Cystosarcoma phyllodes/phyllodes tumor** 1 97 97 02/20/2006

SCC will classify for sites, if desired, based on SNOMED codes. Code as 8 if you want the SCC to do this. Sites without SNOMED codes do the following: Code 0 if the tissue does not have this characteristic. Code 1 if the tissue does have this characteristic. Code 8 if not collected at all. Code 9 if SNOMEDs are typically collected, but were not collected on this tissue sample. For FNA procedures the result should be recorded in variable VIII.30 FNA Result and this field should be coded as 8. See SCC Data Dictionary Appendix 11 for a description of how the SNOMED morphology codes are classified.

(cystos)

Can be directly ascertained or computed from SNOMED codes.

Code:	
0	No
1	Yes
8	Structural missing
9	Unknown

Section / Field Number	Character Position Width	Start	Stop	Last Edit

VIII PATHOLOGY INFORMATION

VIII.26 Calcification

1 98 98 02/20/2006

If calcification is noted or coded from the pathology report, then this question can be answered. SCC will classify for sites, if desired, based on SNOMED codes. Code as 8 if you want the SCC to do this. Sites without SNOMED codes do the following: Code 0 if the tissue does not have this characteristic. Code 1 if the tissue does have this characteristic. Code 8 if not collected at all. Code 9 if SNOMEDs are typically collected, but were not collected on this tissue sample. For FNA procedures the result should be recorded in variable VIII.30 FNA Result and this field should be coded as 8. See SCC Data Dictionary Appendix 11 for a description of how the SNOMED morphology codes are classified.

(calcific)

Can be directly ascertained or computed from SNOMED codes.

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

VIII.27 Benign

1 99 99 02/20/2006

This category includes all fibrocystic changes, but if there is atypical hyperplasia or ductal hyperplasia, these should also be addressed in variables VIII.21 and VIII.22. SCC will classify for sites, if desired, based on SNOMED codes. Code as 8 if you want the SCC to do this. Sites without SNOMED codes do the following: Code 0 if the tissue does not have this characteristic. Code 1 if the tissue does have this characteristic. Code 8 if not collected at all. Code 9 if SNOMEDs are typically collected, but were not collected on this tissue sample. For FNA procedures the result should be recorded in variable VIII.30 FNA Result and this field should be coded as 8. See SCC Data Dictionary Appendix 11 for a description of how the SNOMED morphology codes are classified.

(benign)

Can be directly ascertained or computed from SNOMED codes.

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

Section Field Number	Character Position Width	Start	Stop	Last Edit

VIII PATHOLOGY INFORMATION

VIII.28 Inconclusive

1 100 100 02/20/2006

Inconclusive/unsatisfactory for evaluation. SCC will classify for sites, if desired, based on SNOMED codes. Code as 8 if you want the SCC to do this. Sites without SNOMED codes do the following: Code 0 if the tissue does not have this characteristic. Code 1 if the tissue does have this characteristic. Code 8 if not collected at all. Code 9 if SNOMEDs are typically collected, but were not collected on this tissue sample. For FNA procedures the result should be recorded in variable VIII.30 FNA Result and this field should be coded as 8. See SCC Data Dictionary Appendix 11 for a description of how the SNOMED morphology codes are classified.

(inconclu)

Can be directly ascertained or computed from SNOMED codes.

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

VIII.29 Lymph node tissue

1 101 101 02/20/2006

SCC will classify for sites, if desired, based on SNOMED codes. (e.g. pseudo SNOMED code 917LN) Code as 8 if you want the SCC to do this. Sites without SNOMED codes do the following: Code 0 if the tissue does not have this characteristic. Code 1 if the tissue does have this characteristic. Code 8 if not collected at all. Code 9 if SNOMEDs are typically collected, but were not collected on this tissue sample. Note: more detail on lymph nodes is collected in VIII.38. This variable, VIII.29 just records that lymph nodes were examined. See SCC Data Dictionary Appendix 11 for a description of how the SNOMED morphology codes are classified.

(lympnode)

Can be directly ascertained or computed from SNOMED codes.

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

Section / Field Number	Character Position Width	Start	Stop	Last Edit

VIII PATHOLOGY INFORMATION

VIII.30 FNA result

1 102 102 03/06/2004

Results from an FNA procedure should be recorded here.

(fnareslt)

Code:

0	Negative/benign
1	Atypia
2	Suspicious for malignancy
3	Positive
4	Inconclusive/unsatisfactory
8	Structural missing
9	Unknown

VIII.31 Grade, differentiation

1 103 103 03/06/2005

If there is more than one grade, the higher grade is used. Codes 5, 6, 7, & 8 are not applicable to breast cancer. If this information is not collected or missing code as 9. (Reference: SEER Program Code Manual, 3rd edition, Section IV, Field 06.C, p.101).

(pgrade)

Code:

1	Grade I; grade i; grade1; well-differentiated NOS
2	Grade II; grade ii; grade 2; moderately differentiated; moderately well differentiated; intermediate differentiation
3	Grade III; grade iii; grade 3; poorly differentiated; dedifferentiated
4	Grade IV; grade iv; grade 4; undifferentiated; anaplastic
5	T-cell; T-precursor
6	B-cell; Pre-B; B-precursor
7	Null cell; Non T - Non B
8	N K cell (natural killer cell)
9	Cell type not determined, not stated or not applicable

VIII.32 Estrogen receptors

1 104 104 03/06/2005

Tumor marker I - Estrogen receptor status. If this information is not collected or is missing, code as 9. (Reference: SEER Program Code Manual, 3rd edition, Section IV, Field 07.A, p. 106).

(pestrec)

Code:

0	None done (SX)
1	Positive/elevated
2	Negative/normal; within normal limits (S0)
3	Borderline; undetermined whether positive or negative
8	Ordered, but results not in chart
9	Unknown or no information

Section / Field Number	Character Position Width	Start	Stop	Last Edit

VIII PATHOLOGY INFORMATION

VIII.33 AJCC Stage

2 105 106 03/06/2005

If this information is not collected or missing, code as 9.

(pajcstag)

Code:

xx	See SCC Data Dictionary Appendix 8

VIII.34 Stage

1 107 107 03/06/2005

If sites can convert stage information from pathology reports to AJCC, use VIII.33. If this information is not collected or missing, code as 9.

(pstage)

Code:

0	In situ
1	Localized only
2	Regional by direct expansion
3	Ipsilateral regional lymph node(s) involved only
4	Both 2 and 3
5	Regional NOS
7	Distant site(s) / lymph node(s) involved
9	Unknown

VIII.35 Tumor size

3 108 110 02/15/2005

Note that all tumor sizes should be coded in millimeters. If this information is not collected or missing code as 999. (Reference: SEER 4th edition, Appendix C; p. 475-476. Field 2800).

(ptsize)

Code:

000	No mass/tumor found
xxx	001 - 988 millimeters (code exact size in millimeters)
989	989 millimeters or larger.
990	Microinvasion; microscopic focus or foci only, no size given; described as less than 1 mm
991	Described as less than 1 cm
992	Described as less than 2 cm
993	Described as less than 3 cm
994	Described as less than 4 cm
995	Described as less than 5 cm
996	Mammographic/xerographic diagnosis only, no size given; clinically not palpable
997	Paget's Disease of nipple with no demonstrable tumor
998	Diffuse
999	Unknown; size not stated; not stated in patient record.

Section Field Number	Character Position Width	Start	Stop	Last Edit

VIII PATHOLOGY INFORMATION

VIII.36 **Lymph node surgery** 1 111 111 09/12/2005

Scope of regional lymph node surgery. (Reference: SEER Program Code Manual, 3rd edition, Section V, Field 02.B and Appendix C, p. C-65).

(plymsurg)

Code:

0	No regional lymph nodes removed
1	Sentinel lymph node(s) removed
2	Regional lymph node(s) removed NOS; axillary NOS (Lvls I, II or III lymph nodes); Intramammary NOS
3	Combination of 1 and 2
4	Internal mammary
5	Combination of 4 WITH any of 1-3
6	Sentinel node biopsy and code 3, 4, or 5 at same time or timing not noted
7	Sentinel node biopsy and code 3, 4, or 5 at different times
9	Unknown; not stated; death certificate ONLY

VIII.37 **Number of regional lymph nodes examined** 2 112 113 03/06/2005

If this information is not collected or missing, code as 99. (Reference: SEER Program Code Manual, 3rd edition, Section V, Field 02.C and Appendix C, p. C-65).

(pnumbnod)

Code:

00	No regional lymph nodes examined
01	One regional lymph node examined
xx	xx regional lymph nodes examined (valid range 00-89)
90	Ninety or more regional lymph nodes examined
95	No regional lymph node(s) removed, but aspiration of regional lymph node(s) was performed.
96	Regional lymph node removal documented as a sampling and number of lymph nodes examined unknown / not stated.
97	Regional lymph node removal documented as dissection and number of lymph nodes wxamined unknown/not stated.
98	Regional lymph nodes surgically removed, but number of lymph nodes examined unknown/not stated
99	Unknown; not stated; death certificate ONLY

Section / Field Number	Character Position Width	Start	Stop	Last Edit

VIII PATHOLOGY INFORMATION

VIII.38 Pathology lymph nodes

1 114 114 03/06/2005

If this information is not collected or missing, code as 9. (Reference: SEER EOD-88, 3rd edition, p. 111).
(plympnod)

Code:

0	No lymph node involvement
1	Micrometastasis (<=0.2 cm)
2	>0.2-<2.0 cm, no extension beyond capsule
3	<2.0 cm with extension beyond capsule
4	>=2.0 cm
5	Fixed/matted ipsilateral axillary nodes
6	Axillary/regional lymph nodes NOS, lymph nodes NOS
7	Internal mammary node(s), ipsilateral
8	Cervical, NOS; Contralateral/bilateral axillary and/or internal mammary; Supraclavicular (transverse cervical); Other than above
9	Unknown; not stated

VIII.39 Positive regional lymph nodes

2 115 116 03/11/2005

If this information is not collected or missing, code as 99. (Reference: SEER EOD-88, 3rd edition, p. 9).
(pposnods)

Code:

00	All nodes examined negative
xx	Actual number of positive lymph nodes (valid range 01-89)
90	90 or more nodes positive
95	Positive aspiration of lymph node(s) was performed
97	Positive nodes are documented, but the number is unspecified
98	No nodes examined
99	Unknown if nodes are positive or negative; not applicable

Section Field Number		Character Position Width	Start	Stop	Last Edit

VIII PATHOLOGY INFORMATION

VIII.40 **Lymphomas** 1 117 117 05/11/2004

If the first four digits of the SNOMED code is in "9590 - 9729" then code "Yes". Otherwise, code "No" unless this information is structurally missing or unknown. SCC will classify for sites, if desired, based on SNOMED codes. Code as 8 if you want the SCC to do this. Sites without SNOMED codes do the following: Code 0 if the tissue does not have this characteristic. Code 1 if the tissue does have this characteristic. Code 8 if not collected at all. Code 9 if SNOMEDs are typically collected, but were not collected on this tissue sample. For FNA procedures the result should be recorded in variable VIII.30 FNA Result and this field should be coded as 8. See SCC Data Dictionary Appendix 11 for a description of how the SNOMED code is classified.

(lymphoma)

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

VIII.41 **Progesterone receptors** 1 118 118 02/08/2005

Tumor marker II - Progesterone receptor status. (Reference: SEER Program Code Manual, 3rd edition, Section IV, Field 07.B, p. 108) If this information is not collected or is missing then code as 9.

(progrecp)

Code:

0	None done (SX)
1	Positive/elevated
2	Negative/normal; within normal limits (S0)
3	Borderline; undetermined whether positive or negative
8	Ordered, but results not in chart
9	Unknown or no information

Section Field Number		Character Position Width	Start	Stop	Last Edit

VIII PATHOLOGY INFORMATION

VIII.42 **Sarcoma (not including cystosarcoma phyllodes/phyllodes tumor)** 1 119 119 02/14/2006

This field should contain information about breast sarcomas, not including cystosarcoma phyllodes/phyllodes tumor which should be coded in VIII.25. SCC will classify for sites, if desired, based on SNOMED codes. Code as 8 if you want the SCC to do this. Sites without SNOMED codes do the following: Code 0 if the tissue does not have this characteristic. Code 1 if the tissue does have this characteristic. Code 8 if not collected at all. Code 9 if SNOMEDs are typically collected, but were not collected on this tissue sample. For FNA procedures the result should be recorded in variable VIII.30 FNA Result and this field should be coded as 8. See SCC Data Dictionary Appendix 11 for a description of how the SNOMED morphology codes are classified.

(sarcoma)

```
note: VII.42 used to be Her2neu, this is now replaced by 3 variables VII.43-
VII.45
```

Code:

0	No
1	Yes
8	Structural missing
9	Unknown

VIII.43 **Her2neu based on IHC test** 1 120 120 02/14/2006

Her2neu result based in immunohistochemical (IHC) test. If the type of Her2neu test is not known, code here.

(her2neui)

Code:

0	Not done
1	Negative (IHC 0 or 1+, no evidence of over-expression)
2	Indeterminate/Borderline (IHC 2+, borderline for over-expression)
3	Positive (IHC 3+, over expression)
4	Pending (test ordered, but result unknown)
8	Structural missing
9	Unknown

Section Field Number	Character Position Width	Start	Stop	Last Edit

VIII PATHOLOGY INFORMATION

VIII.44 Her2neu based on FISH test

1 121 121 02/14/2006

Her2neu result based in fluorescent in-situ hybridization (FISH) test. If the type of Her2neu test is not known, code in VIII.43 Her2neu based on IHC test.

(Her2neuf)

Code:

0	Not done
1	Negative (not amplified)
2	Indeterminate/Borderline
3	Positive (amplified)
4	Pending (test ordered, but result unknown)
8	Structural missing
9	Unknown

VIII.45 Her2neu test type

1 122 122 02/14/2006

Type of test(s) used to determine Her2neu result.

(Her2neut)

Code:

0	Not done
1	IHC (immunohistochemical) only
2	FISH (fluorescent in-situ hybridization) only
3	IHC first, then FISH if IHC borderline/indeterminate
4	Both IHC and FISH, order unknown
5	Other
8	Structural missing
9	Unknown

FIPS (Federal Information Processing Standard)

County Codes

CALIFORNIA 06

001=Alameda
003=Alpine
005=Amador
007=Butte
009=Calaveras
011=Colusa
013=Contra Costa
015=Del Norte
017=El Dorado
019=Fresno
021=Glenn
023=Humboldt
025=Imperial
027=Inyo
029=Kern
031=Kings
033=Lake
035=Lassen
037=Los Angeles
039=Madera
041=Marin
043=Mariposa
045=Mendocino
047=Merced
049=Modoc
051=Mono
053=Monterey
055=Napa
057=Nevada
059=Orange
061=Placer
063=Plumas
065=Riverside
067=Sacramento
069=San Benito
071=San Bernardino
073=San Diego
075=San Francisco
077=San Joaquin
079=San Luis Obispo
081=San Mateo
083=Santa Barbara
085=Santa Clara
087=Santa Cruz
089=Shasta
091=Sierra
093=Siskiyou
095=Solano
097=Sonoma
099=Stanislaus
101=Sutter
103=Tehama
105=Trinity
107=Tulare
109=Tuolumne
111=Ventura
113=Yolo
115=Yuba

FIPS (Federal Information Processing Standard)

County Codes

COLORADO 08

001=Adams
003=Alamosa
005=Arapahoe
007=Archuleta
009=Baca
011=Bent
013=Boulder
015=Chaffee
017=Cheyenne
019=Clear Creek
021=Conejos
023=Costilla
025=Crowley
027=Custer
029=Delta
031=Denver
033=Dolores
035=Douglas
037=Eagle
039=Elbert
041=El Paso
043=Fremont
045=Garfield
047=Gilpin
049=Grand
051=Gunnison
053=Hinsdale
055=Huerfano
057=Jackson
059=Jefferson
061=Kiowa
063=Kit Carson
065=Lake
067=La Plata
069=Larimer
071=Las Animas
073=Lincoln
075=Logan
077=Mesa
079=Mineral
081=Moffat
083=Montezuma
085=Montrose
087=Morgan
089=Otero
091=Ouray
093=Park
095=Phillips
097=Pitkin
099=Prowers
101=Pueblo
103=Rio Blanco
105=Rio Grande
107=Routt
109=Saguache
111=San Juan
113=San Miguel
115=Sedgwick
117=Summit
119=Teller
121=Washington
123=Weld
125=Yuma

FIPS (Federal Information Processing Standard)

County Codes

NEW HAMPSHIRE 33

001=Belknap
003=Carroll
005=Cheshire
007=Coos
009=Grafton
011=Hillsborough
013=Merrimack
015=Rockingham
017=Strafford
019=Sullivan

FIPS (Federal Information Processing Standard)

County Codes

NEW MEXICO 35

001=Bernalillo
003=Catron
005=Chaves
006=Cibola
007=Colfax
009=Curry
011=DeBaca
013=Dona Ana
015=Eddy
017=Grant
019=Guadalupe
021=Harding
023=Hidalgo
025=Lea
027=Lincoln
028=Los Alamos
029=Luna
031=McKinley
033=Mora
035=Otero
037=Quay
039=Rio Arriba
041=Roosevelt
043=Sandoval
045=San Juan
047=San Miguel
049=Santa Fe
051=Sierra
053=Socorro
055=Taos
057=Torrance
059=Union
061=Valencia

FIPS (Federal Information Processing Standard)

County Codes

NORTH CAROLINA 37

001=Alamance
003=Alexander
005=Alleghany
007=Anson
009=Ashe
011=Avery
013=Beaufort
015=Bertie
017=Bladen
019=Brunswick
021=Buncombe
023=Burke
025=Cabarrus
027=Caldwell
029=Camden
031=Carteret
033=Caswell
035=Catawba
037=Chatham
039=Cherokee
041=Chowan
043=Clay
045=Cleveland
047=Columbus
049=Craven
051=Cumberland
053=Currituck
055=Dare
057=Davidson
059=Davie
061=Duplin
063=Durham
065=Edgecombe
067=Forsyth
069=Franklin
071=Gaston
073=Gates
075=Graham
077=Granville
079=Greene
081=Guilford
083=Halifax
085=Harnett
087=Haywood
089=Henderson
091=Hertford
093=Hoke
095=Hyde
097=Iredell
099=Jackson
101=Johnston
103=Jones
105=Lee
107=Lenoir
109=Lincoln
111=McDowell
113=Macon
115=Madison
117=Martin
119=Mecklenburg
121=Mitchell
123=Montgomery
125=Moore
127=Nash
129=New Hanover
131=Northampton
133=Onslow
135=Orange
137=Pamlico
139=Pasquotank
141=Pender
143=Perquimans
145=Person
147=Pitt
149=Polk
151=Randolph
153=Richmond
155=Robeson
157=Rockingham
159=Rowan
161=Rutherford
163=Sampson
165=Scotland
167=Stanly
169=Stokes
171=Surry
173=Swain
175=Transylvania
177=Tyrrell
179=Union
181=Vance
183=Wake
185=Warren
187=Washington
189=Watauga
191=Wayne
193=Wilkes
195=Wilson
197=Yadkin
199=Yancey

FIPS (Federal Information Processing Standard)

County Codes

VERMONT 50

001=Addison
003=Bennington
005=Caledonia
007=Chittenden
009=Essex
011=Franklin
013=Grand Isle
015=Lamoille
017=Orange
019=Orleans
021=Rutland
023=Washington
025=Windham
027=Windsor

FIPS (Federal Information Processing Standard)

County Codes

WASHINGTON 53

001=Adams
003=Asotin
005=Benton
007=Chelan
009=Clallam
011=Clark
013=Columbia
015=Cowlitz
017=Douglas
019=Ferry
021=Franklin
023=Garfield
025=Grant
027=Grays Harbor
029=Island
031=Jefferson
033=King
035=Kitsap
037=Kittitas
039=Klickitat
041=Lewis
043=Lincoln
045=Mason
047=Okanogan
049=Pacific
051=Pend Oreille
053=Pierce
055=San Juan
057=Skagit
059=Skamania
061=Snohomish
063=Spokane
065=Stevens
067=Thurston
069=Wahkiakum
071=Walla Walla
073=Whatcom
075=Whitman
077=Yakima

FIPS (Federal Information Processing Standard)

State codes and their State names

01 = Alabama
02 = Alaska
04 = Arizona
05 = Arkansas
06 = California
08 = Colorado
09 = Connecticut
10 = Delaware
11 = District of Columbia
12 = Florida
13 = Georgia
15 = Hawaii
16 = Idaho
17 = Illinois
18 = Indiana
19 = Iowa
20 = Kansas
21 = Kentucky
22 = Louisiana
23 = Maine
24 = Maryland
25 = Massachusetts
26 = Michigan
27 = Minnesota
28 = Mississippi
29 = Missouri
30 = Montana
31 = Nebraska
32 = Nevada
33 = New Hampshire
34 = New Jersey
35 = New Mexico
36 = New York
37 = North Carolina
38 = North Dakota
39 = Ohio
40 = Oklahoma
41 = Oregon
42 = Pennsylvania
44 = Rhode Island
45 = South Carolina
46 = South Dakota
47 = Tennessee
48 = Texas
49 = Utah
50 = Vermont
51 = Virginia
53 = Washington
54 = West Virginia
55 = Wisconsin
56 = Wyoming
60 = American Samoa
61 = Canal Zone
62 = Canton/Enderbury Is
64 = Fed State Micronesia
66 = Guam
67 = Johnston Atoll
68 = Marshall Islands
69 = Northern Mariana Isl
70 = Palau
71 = Midway Island
72 = Puerto Rico
74 = US Minor Outlying Is
75 = Trust Territories Pa
76 = US Misc Carib Isl
77 = Navassa Island
78 = Virgin Islands
79 = Wake Island
81 = Baker Island
84 = Howland Island
86 = Jarvis Island
89 = Kingman Reef
95 = Palmyra Atoll
98 = Outside USA country
99 = Unknown

APPENDIX B

SEER GEOCODES

For Coding Place of Birth and Place of Death

Table of Contents

CONTINENTAL UNITED STATES AND HAWAII

000 United States

001 New England States
- 002 Maine
- 003 New Hampshire
- 004 Vermont
- 005 Massachusetts
- 006 Rhode Island
- 007 Connecticut
- 008 New Jersey

010 North Mid-Atlantic States
- 011 New York
- 014 Pennsylvania
- 017 Delaware

020 South Mid-Atlantic States
- 021 Maryland
- 022 District of Columbia
- 023 Virginia
- 024 West Virginia
- 025 North Carolina
- 026 South Carolina

030 Southeastern States
- 031 Tennessee
- 033 Georgia
- 035 Florida
- 037 Alabama
- 039 Mississippi

040 North Central States
- 041 Michigan
- 043 Ohio
- 045 Indiana
- 047 Kentucky

050 Northern Midwest States
- 051 Wisconsin
- 052 Minnesota
- 053 Iowa
- 054 North Dakota
- 055 South Dakota
- 056 Montana

060 Central Midwest States
- 061 Illinois
- 063 Missouri
- 065 Kansas
- 067 Nebraska

070 Southern Midwest States
- 071 Arkansas
- 073 Louisiana
- 075 Oklahoma
- 077 Texas

080 Mountain States
- 081 Idaho
- 082 Wyoming
- 083 Colorado
- 084 Utah
- 085 Nevada
- 086 New Mexico
- 087 Arizona

090 Pacific Coast States
- 091 Alaska
- 093 Washington
- 095 Oregon
- 097 California
- 099 Hawaii

UNITED STATES POSSESSIONS

When SEER geocodes were originally assigned during the 1970s, the United States owned or controlled islands in the Pacific. Since then many of these islands have either been given their independence or had control turned over to another country. In order to maintain consistent information over time, these islands are still to be coded to the original codes. Earlier designations are listed in parentheses.

100 Atlantic/Caribbean Area
- 101 Puerto Rico
- 102 U.S. Virgin Islands
- 109 Other Atlantic/Caribbean Area

110 Canal Zone

120 Pacific Area
- 121 American Samoa
- 122 Kiribati (Canton and Enderbury Islands, Gilbert Islands, Southern Line Islands, Phoenix Islands)
- 123 Micronesia [Federated States of] (Caroline Islands, Trust Territory of Pacific Islands)
- 124 Cook Islands (New Zealand)
- 125 Tuvalu (Ellice Islands)
- 126 Guam
- 127 Johnston Atoll
- 129 Mariana Islands (Trust Territory of Pacific Islands) Northern Mariana Islands
- 131 Marshall Islands (Trust Territory of Pacific Islands)
- 132 Midway Islands
- 133 Nampo-Shoto, Southern
- 134 Ryukyu Islands (Japan)
- 135 Swan Islands
- 136 Tokelau Islands (New Zealand)
- 137 Wake Island
- 139 Palau (Trust Territory of Pacific Islands)

NORTH AND SOUTH AMERICA, EXCLUSIVE OF THE UNITED STATES AND ITS POSSESSIONS

210 Greenland

220 Canada
- 221 Maritime provinces
  - Labrador
  - New Brunswick
  - Newfoundland
  - Nova Scotia
  - Prince Edward Island
- 222 Quebec
- 223 Ontario
- 224 Prairie Provinces
  - Alberta
  - Manitoba
  - Saskatchewan
- 225 Northwest Territories
  - Yukon Territory
- 226 British Columbia
- 227 Nunavut (Nunavut became an official Territory of Canada on April 1, 1999)

230 Mexico

240 North American Islands
- 241 Cuba
- 242 Haiti
- 243 Dominican Republic
- 244 Jamaica
- 245 Other Caribbean Islands
  - Anguilla
  - Antigua and Barbuda
  - Antilles, NOS
  - Aruba
  - Barbados
  - British Virgin Islands
  - British West Indies, NOS
  - Caribbean, NOS
  - Cayman Islands
  - Curacao
  - Dominica
  - French West Indies
  - Grenada
  - Grenadines, The
  - Guadeloupe
  - Leeward Island, NOS
  - Martinique
  - Montserrat
  - Netherlands Antilles
  - St. Christopher-Nevis
  - St. Kitts
  - St. Lucia
  - St. Vincent and The Grenadines
  - Trinidad and Tobago
  - Turks Islands Antilles, NOS
  - British West Indies, NOS
  - Carribean, NOS
- 245 Other Caribbean Islands, continued
  - Leeward islands, NOS
  - West Indies, NOS
  - Windward Islands, NOS
- 246 Bermuda
- 247 Bahamas, The
- 249 St. Pierre and Miquelon

250 Central America
- 251 Guatemala
- 252 Belize (British Honduras)
- 253 Honduras
- 254 El Salvador
- 255 Nicaragua
- 256 Costa Rica
- 257 Panama

260 North America, NOS

265 Latin America, NOS

300 South America, NOS
- 381 Colombia
- 321 Venezuela
- 331 Guyana (British Guiana)
- 332 Suriname (Dutch Guiana)
  Netherlands Guiana
- 333 French Guiana
- 341 Brazil
- 345 Ecuador
  Galapagos Islands
- 351 Peru
- 355 Bolivia
- 361 Chile
- 365 Argentina
- 371 Paraguay
- 375 Uruguay

380 South American Islands
- 381 Falkland Islands

EUROPE

former or alternative names are in parentheses

Europe, NOS (See code 499) *

400 United Kingdom, NOS
- 401 England
  - Channel Islands
  - Guernsey
  - Isle of Man
  - Jersey
- 402 Wales
- 403 Scotland
  - Orkney Islands
  - Shetland Islands
- 404 Northern Ireland (Ulster)

410 Ireland (Eire)
- Ireland, NOS
- Republic of Ireland

420 Scandinavia
- Lapland, NOS
- 421 Iceland
- 423 Norway
  - Svalbard
- 425 Denmark
  - Faroe (Faeroe) Islands
- 427 Sweden
- 429 Finland

430 Germanic Countries
- 431 Germany
  - East Germany including East Berlin
  - West Germany including West Berlin
  - Federal Republic of Germany
  - German Democratic Republic
  - Germany, East
  - Germany, Federal Republic of
  - Germany, West
- 432 Netherlands
  - Holland
- 433 Belgium
- 434 Luxembourg
- 435 Switzerland
- 436 Austria
- 437 Liechtenstein

440 Romance-language Countries
- 441 France
  - Corsica
  - Monaco
- 443 Spain
  - Andorra
  - Balearic Islands
  - Canary Islands

* *Effective cases diagnosed 1/1/1992.*

- 445 Portugal
  - Azores
  - Cape Verde Islands
  - Madeira Islands
- 447 Italy
  - San Marino
  - Sardinia
  - Sicily
  - Vatican City (Holy See)
- 449 Romania

- 450 Slavic Countries
- 451 Poland
- 452 (former)Czechoslovakia region
  - Bohemia
  - Czech Republic
  - Moravia
  - Slovak Republic
  - Slovakia
- 453 (former) Yugoslavia region
  - Bosnia-Herzogovina
  - Croatia
  - Dalmatia
  - Jugoslavia
  - Macedonia
  - Montenegro
  - Serbia
  - Slavonia
  - Slovenia
- 454 Bulgaria
- 455 Russia
  - Russian Federation
  - (former) U.S.S.R.
  - Russia, NOS
  - (Russian S.F.S.R.)

456 Ukraine and Moldova
(Bessarabia)
Moldavia
(Moldavian S.S.R.)
(Ukranian S.S.R.)
457 Belarus
(Byelorussian S.S.R.)
(White Russia)
458 Estonia (Estonian S.S.R.)
459 Latvia (Latvian S.S.R.)
461 Lithuania
(Lithuanian S.S.R.)
463 Baltic Republic(s), NOS
(Baltic States, NOS)

470 Other mainland Europe
471 Greece
Crete
475 Hungary
481 Albania
485 Gibraltar

490 Other Mediterranean Islands
491 Malta
495 Cyprus

499 Europe, NOS*
Central Europe, NOS
Eastern Europe, NOS
Northern Europe, NOS
Southern Europe, NOS
Western Europe, NOS

* *Effective cases diagnosed 1/1/1992.*

AFRICA

500 Africa, NOS
Central Africa, NOS
Equatorial Africa, NOS

510 North Africa, NOS
511 Morocco
513 Algeria
515 Tunisia
517 Libya
(Cyrenaica)
(Tripoli)
(Tripolitania)
519 Egypt (United Arab
Republic)

520 Sudanese Countries
Burkina Faso (Upper Volta)
Chad
Mali
Mauritania
Niger
Sudan (Anglo-Egyptian Sudan)
Western (Spanish) Sahara

530 West Africa
French West Africa, NOS
531 Nigeria
539 Other West African
Countries
Benin (Dahomey)
Cameroon (Kameroon)
Central African Republic
(French Equatorial Africa)
Cote d'Ivoire (Ivory Coast)
Congo (Congo-Brazzaville,
French Congo)
Equatorial Guinea
(Spanish Guinea) (Bioko
{Fernando Poo},
Rio Muni)
Gabon
Gambia, The
Ghana
Guinea
Guinea Bissau
(Portuguese
Guinea)
Liberia
Senegal
Sierra Leone
Togo

540 South Africa
541 Zaire (Congo-Leopoldville,
Belgian Congo, Congo
Kinshasa)
543 Angola (Sao Tome,
Principe, Cabinda)
545 Republic of South Africa
(Bophuthatswana, Cape
Colony, Ciskei, Natal,
Free State {Orange Free
State}, Transkei,
Transvaal, Venda)
Botswana (Bechuanaland)
Lesotho (Basutoland)
Namibia (South West
Africa)
Swaziland
Union of South Africa

547 Zimbabwe (Rhodesia, Southern Rhodesia)
549 Zambia (Northern Rhodesia)
551 Malawi (Nyasaland)
553 Mozambique
555 Madagascar (Malagasy Republic)

570 East Africa
571 Tanzania (Tanganyika, Tanzanyika, Zanzibar)
573 Uganda
575 Kenya
577 Rwanda (Ruanda)
579 Burundi (Urundi)
581 Somalia (Somali Republic, Somaliland)
583 Djibouti (French Territory of the Afars and Issas, French Somaliland)
585 Ethiopia (Abyssinia)
Eritrea

580 African Coastal Islands (previously included in 540)
Comoros
Mauritius
Mayotte
Reunion
St. Helena
Seychelles

** Effective cases diagnosed 1/1/1992*

ASIA

600 Asia, NOS*

610 Near East
Mesopotamia, NOS
611 TurkeyAnatolia
Armenia (Turkey)
Asia Minor, NOS

620 Asian Arab Countries
Iraq-Saudi Arabia Neutral Zone
621 Syria
623 Lebanon
625 Jordan (Trans-Jordan, former Arab Palestine)
627 Iraq
629 Arabian Peninsula
Bahrain
Kuwait
Oman
Muscat
Persian Gulf States, NOS
Qatar
Saudi Arabia
United Arab Emirates (Trucial States)
Yemen (Aden, People's Democratic Republic of Yemen, Southern Yemen)
631 Israel and former Jewish Palestine
Gaza
Palestine (Palestinian National Authority--PNA)
Palestine, NOS
West Bank
633 Caucasian Republics of the former U.S.S.R.
Armenia
Azerbaijan (Nagorno-Karabakh)
Azerbaizhan S.S.R
Georgia
634 Other Asian Republics of the former U.S.S.R.
Kazakhstan (Kazakh S.S.R.)
Kyrgystan (Kirghiz S.S.R., Kyrgyz)
Tajikistan (Tadzhik S.S.R.)
Turkmenistan (Turkmen S.S.R.)
Uzbekistan (Uzbek S.S.R.)
637 Iran (Persia)
638 Afghanistan
639 Pakistan (West Pakistan)
640 Mid-East Asia, NOS
Maldives
641 India
Andaman Islands
643 Nepal
Bhutan
Sikkim
645 Bangladesh (East Pakistan)
647 Sri Lanka (Ceylon)
649 Myanmar (Burma)

650 Southeast Asia
651 Thailand (Siam)

660 Indochina
- 661 Laos
- 663 Cambodia
  - Kampuchea
- 665 Vietnam (Tonkin, Annam, Cochin China)
- 671 Malaysia
  - Brunei
  - Malay Peninsula
  - North Borneo
  - Singapore
- 673 Indonesia (Dutch East Indies)
  - Borneo
  - Java
  - New Guinea, except Australian and North East
  - Sumatra
- 675 Philippines (Philippine Islands)

680 East Asia
- 681 China, NOS
- 682 China (People's Republic of China)
- 683 Hong Kong
- 684 Taiwan (Formosa, Republic of China)
- 685 Tibet
- 686 Macao (Macau)
- 691 Mongolia
- 693 Japan
- 695 Korea
  - North Korea
  - South Korea

* *Effective cases diagnosed 1/1/1992.*

AUSTRALIA AND OCEANIA

711 Australia
- Cartier Islands
- Cocos (Keeling) Islands
- New Guinea, Australian
- New Guinea, North East
- Norfolk Island
- Papau New Guinea

715 New Zealand
- Niue

720 Pacific Islands ~
- Oceania, NOS
- Polynesia, NOS

721 Melanesian Islands
- Fiji
- Futuna
- New Hebrides
- Solomon Islands
- Vanuatu
- Wallis

723 Micronesian Islands ~
- Christmas Island
- Nauru

725 Polynesian Islands ~
- French Polynesia
- New Caledonia
- Pitcairn Islands
- Samoa, Western
- Tonga
- Western Samoa

750 Antarctica

~ Except possessions of the U.S.A.

PLACE OF BIRTH UNKNOWN

998 Place of Birth stated not to be in United States, but no other information available

999 Place of Birth unknown

References: *CIA World Factbook,* 1995.
U.S. Bureau of the Census Place of Birth Technical Documentation, 1997.

ALPHABETICAL LISTING
** Effective cases diagnosed 1/1/1992.*

A

585 Abyssinia
629 Aden
583 Afars and Issas
638 Afghanistan
500 Africa
570 Africa, East
510 Africa, North
540 Africa, South
545 Africa, South West
530 Africa, West
580 African Coastal Islands (previously included in 540)
037 Alabama
091 Alaska
481 Albania
224 Alberta
513 Algeria
250 America, Central
265 America, Latin
260 America, North (use a more specific term; see also North America)
300 America, South
121 American Samoa
611 Anatolia
641 Andaman Islands
443 Andorra
520 Anglo-Egyptian Sudan
543 Angola
245 Anguilla
665 Annam
750 Antarctica
245 Antigua
245 Antilles, NOS
245 Antilles, Netherlands
625 Arab Palestine (former)
629 Arabia, Saudi
629 Arabian Peninsula
365 Argentina
087 Arizona
071 Arkansas
611 Armenia (Turkey)
633 Armenia (U.S.S.R.)
245 Aruba
600 Asia, NOS*
680 Asia, East
640 Asia, Mid-East
611 Asia Minor, NOS
610 Asia, Near-East
650 Asia, Southeast
620 Asian Arab Countries
634 Asian Republics of the former U.S.S.R.
109 Atlantic/Caribbean area, other U.S. possessions
100 Atlantic/Caribbean area, U.S. possessions
711 Australia
711 Australian New Guinea
436 Austria
633 Azerbaijan
633 Azerbaizhan S.S.R.
445 Azores

B

247 Bahamas, The
629 Bahrain
443 Balearic Islands
463 Baltic Republic(s), NOS
463 Baltic States, NOS
645 Bangladesh
245 Barbados
245 Barbuda
545 Basutoland
431 Bavaria
545 Bechuanaland
457 Belarus
541 Belgian Congo
433 Belgium
252 Belize
539 Benin
246 Bermuda
456 Bessarabia
643 Bhutan
539 Bioko (Fernando Poo)
452 Bohemia
355 Bolivia
545 Bophuthatswana
673 Borneo
453 Bosnia-Herzogovina
545 Botswana
341 Brazil
226 British Columbia
331 British Guiana
252 British Honduras
245 British Virgin Islands
245 British West Indies, NOS
671 Brunei

454 Bulgaria
520 Burkina Faso (Upper Volta)
649 Burma (see Myanmar)
579 Burundi
457 Byelorussian S.S.R.

C

543 Cabinda
245 Caicos Islands
097 California
663 Cambodia
539 Cameroon
220 Canada
110 Canal Zone
443 Canary Islands
122 Canton Islands
545 Cape Colony
445 Cape Verde Islands
245 Caribbean, NOS
245 Caribbean Islands, other
123 Caroline Islands
711 Cartier Islands
633 Caucasian Republics of the former U.S.S.R.
245 Cayman Islands
500 Central Africa, NOS
539 Central African Republic
250 Central America
499 Central Europe, NOS
060 Central Midwest States
647 Ceylon (see Sri Lanka)
520 Chad
401 Channel Islands (British)
361 Chile
681 China, NOS
665 China, Cochin
682 China, People's Republic of
684 China, Republic of
723 Christmas Island
545 Ciskei
665 Cochin China
711 Cocos (Keeling) Islands
381 Colombia
083 Colorado
580 Comoros
226 Columbia, British
022 Columbia, District of
539 Congo, NOS
539 Congo-Brazzaville
541 Congo-Leopoldville
541 Congo, Belgian
539 Congo, French
541 Congo Kinshasa
007 Connecticut
124 Cook Islands
441 Corsica
256 Costa Rica
539 Cote d'Ivoire (Ivory Coast)
471 Crete
453 Croatia
241 Cuba
245 Curacao
495 Cyprus
517 Cyrenaica
452 Czechoslovakia
452 Czech Republic

D

539 Dahomey
453 Dalmatia
017 Delaware
425 Denmark
022 District of Columbia
583 Djibouti
449 Dobruja
245 Dominica
243 Dominican Republic
673 Dutch East Indies
332 Dutch Guiana

E

570 East Africa
680 East Asia
431 East Germany
673 East Indies, Dutch
645 East Pakistan
499 Eastern Europe, NOS
345 Ecuador
519 Egypt
410 Eire
254 El Salvador
125 Ellice Islands
122 Enderbury Islands
401 England
122 Enterbury Islands
500 Equatorial Africa, NOS
539 Equatorial Guinea (Spanish Guinea)
585 Eritrea
458 Estonia
458 Estonian S.S.R. (Estonia)
585 Ethiopia
499 Europe, NOS*
470 Europe, other mainland

F

425 Faroe (Faeroe) Islands
381 Falkland Islands
431 Federal Republic of Germany
123 Federated States of Micronesia
539 Fernando Poo
721 Fiji
429 Finland
035 Florida
684 Formosa
441 France
545 Free State (Orange Free State)
539 French Congo
333 French Guiana
725 French Polynesia
583 French Somaliland
530 French West Africa, NOS
245 French West Indies
721 Futuna

G

539 Gabon
345 Galapagos Islands
539 Gambia, The
631 Gaza Strip
033 Georgia (U.S.A.)
633 Georgia (U.S.S.R.)
431 German Democratic Republic
430 Germanic Countries
431 Germany
431 Germany, East
431 Germany, Federal Republic of
431 Germany, West
539 Ghana
485 Gibraltar
122 Gilbert Islands
471 Greece
210 Greenland
245 Grenada
245 Grenadines, The
245 Guadaloupe
126 Guam
251 Guatamala
401 Guernsey
331 Guiana, British
332 Guiana, Dutch
333 Guiana, French
539 Guinea
539 Guinea-Bissau (Portuguese Guinea)
539 Guinea, Equatorial
—— Guinea, New (see New Guinea)
539 Guinea, Portuguese
331 Guyana

H

242 Haiti
099 Hawaii
432 Holland
253 Honduras
252 Honduras, British
683 Hong Kong
475 Hungary

I

421 Iceland
081 Idaho
061 Illinois
641 India
045 Indiana
673 Indies, Dutch East
660 Indochina
673 Indonesia
053 Iowa
637 Iran
627 Iraq
620 Iraq-Saudi Arabian Neutral Zone
410 Ireland (Eire)
410 Ireland, NOS
404 Ireland, Northern
410 Ireland, Republic of
401 Isle of Man
631 Israel
583 Issas
447 Italy
539 Ivory Coast

J

244 Jamaica
423 Jan Mayen
693 Japan
673 Java
401 Jersey
631 Jewish Palestine
127 Johnston Atoll
625 Jordan
453 Jugoslavia

K

539 Kameroon
663 Kampuchea
065 Kansas
634 Kazakh S.S.R.
634 Kazakhstan
047 Kentucky
575 Kenya
634 Kirghiz S.S.R.
122 Kiribati
695 Korea
695 Korea, North
695 Korea, South
629 Kuwait
634 Kyrgystan
634 Kyrgyz

L

221 Labrador
661 Laos
420 Lapland, NOS
265 Latin America, NOS
459 Latvia
459 Latvian S.S.R. (Latvia)
623 Lebanon
245 Leeward Island, NOS
545 Lesotho
539 Liberia
517 Libya
437 Liechtenstein
122 Line Islands, Southern
461 Lithuania
461 Lithuanian S.S.R. (Lithuania)
073 Louisiana
434 Luxembourg

M

686 Macao
686 Macau
453 Macedonia
555 Madagascar
445 Madeira Islands
002 Maine
555 Malagasy Republic
551 Malawi
671 Malay Peninsula
671 Malaysia
640 Maldives
520 Mali
491 Malta
224 Manitoba
129 Mariana Islands
221 Maritime Provinces, Canada
131 Marshall Islands
245 Martinique
021 Maryland
005 Massachusetts
520 Mauritania
580 Mauritius
580 Mayotte
490 Mediterranean Islands, Other
721 Melanesian Islands
610 Mesopotamia, NOS
230 Mexico
041 Michigan
123 Micronesian Islands
640 Mid-East Asia
132 Midway Islands
052 Minnesota
249 Miquelon
039 Mississippi
063 Missouri
456 Moldavia
456 Moldavian S.S.R.
456 Moldova
441 Monaco
691 Mongolia
056 Montana
453 Montenegro
245 Montserrat
452 Moravia
511 Morocco
080 Mountain States
553 Mozambique
629 Muscat
649 Myanmar (see Burma)

N

545 Namibia
133 Nampo-shoto, Southern
545 Natal
723 Nauru
610 Near-East Asia
067 Nebraska
643 Nepal
432 Netherlands
245 Netherlands Antilles
332 Netherlands Guiana
085 Nevada
245 Nevis
221 New Brunswick

725 New Caledonia
001 New England
673 New Guinea, except Australian and North East
711 New Guinea, Australian
711 New Guinea, North East
003 New Hampshire
721 New Hebrides
008 New Jersey
086 New Mexico
011 New York
715 New Zealand
221 Newfoundland
255 Nicaragua
520 Niger
531 Nigeria
715 Niue
510 North Africa, NOS
260 North America, NOS (use more specific term if possible)
240 North American Islands
671 North Borneo (Malaysia)
025 North Carolina
040 North Central States
054 North Dakota
711 North East New Guinea
695 North Korea
010 North Mid-Atlantic States
499 Northern Europe, NOS
404 Northern Ireland
129 Northern Mariana Islands
050 Northern Midwest States
549 Northern Rhodesia
711 Norfolk Island
225 Northwest Territories (Canada)
423 Norway
998 Not United States, NOS
221 Nova Scotia
227 Nunavut
551 Nyasaland

O

720 Oceania
043 Ohio
075 Oklahoma
629 Oman
223 Ontario
545 Orange Free State
095 Oregon
403 Orkney Islands

P

120 Pacific area, U.S. possessions
720 Pacific Islands
123 Pacific Islands, Trust Territory of the (code to specific islands if possible)
090 Pacific Coast States
639 Pakistan
645 Pakistan, East
639 Pakistan, West
139 Palau (Trust Territory of the Pacific Islands)
625 Palestine, Arab
631 Palestine, Jewish
631 Palestine, NOS
631 Palestinian National Authority--PNA
257 Panama
711 Papua New Guinea
371 Paraguay
014 Pennsylvania
629 People's Democratic Republic of Yemen
682 People's Republic of China
637 Persia
629 Persian Gulf States, NOS
351 Peru
675 Philippine Islands
675 Philippines
122 Phoenix Islands
725 Pitcairn Islands
451 Poland
725 Polynesian Islands
445 Portugal
539 Portuguese Guinea
224 Prairie Provinces, Canada
221 Prince Edward Island
543 Principe
101 Puerto Rico

Q

629 Qatar
222 Quebec

R

684 Republic of China
545 Republic of South Africa
580 Reunion
006 Rhode Island
547 Rhodesia
549 Rhodesia, Northern
547 Rhodesia, Southern
539 Rio Muni
440 Romance-language Countries
449 Romania
449 Roumania
577 Ruanda
449 Rumania
455 Russia, NOS
457 Russia, White
455 Russian Federation (former U.S.S.R.)
455 Russian S.F.S.R.
577 Rwanda
134 Ryukyu Islands (Japan)

S

520 Sahara, Western (Spanish)
121 Samoa, American
725 Samoa, Western
245 St. Christopher-Nevis
580 St. Helena
245 St. Kitts
245 St. Lucia
249 St. Pierre
245 St. Vincent
447 San Marino
543 Sao Tome
447 Sardinia
224 Saskatchewan
629 Saudi Arabia
420 Scandinavia
403 Scotland
539 Senegal
453 Serbia
580 Seychelles
403 Shetland Islands
651 Siam
447 Sicily
539 Sierra Leone
643 Sikkim
671 Singapore
450 Slavic Countries
453 Slavonia
452 Slovak Republic
452 Slovakia
453 Slovenia
721 Solomon Islands
581 Somali Republic
581 Somalia
581 Somaliland
583 Somaliland, French
540 South Africa
545 South Africa, Republic of
545 South Africa, Union of
300 South America
380 South American Islands
026 South Carolina
055 South Dakota
695 South Korea
020 South Mid-Atlantic States
545 South West Africa
650 Southeast Asia
030 Southeastern States
499 Southern Europe, NOS
122 Southern Line Islands
070 Southern Midwest States
133 Southern Nampo-shoto
547 Southern Rhodesia
629 Southern Yemen
—— Soviet Union (see individual republics)
443 Spain
520 Spanish Sahara
647 Sri Lanka (see Ceylon)
520 Sudan (Anglo-Egyptian Sudan)
520 Sudanese Countries
673 Sumatra
332 Suriname
423 Svalbard
135 Swan Islands
545 Swaziland
427 Sweden
435 Switzerland
621 Syria

T

634 Tadzhik S.S.R.
684 Taiwan
634 Tajikistan
571 Tanzania
571 Tanganyika
571 Tanzanyika
031 Tennessee
077 Texas
651 Thailand (Siam)
685 Tibet
245 Tobago
539 Togo
136 Tokelau Islands
725 Tonga
665 Tonkin
625 Trans-Jordan
545 Transkei
545 Transvaal
449 Transylvania
245 Trinidad
517 Tripoli
517 Tripolitania
629 Trucial States
515 Tunisia
611 Turkey
634 Turkmen S.S.R.
634 Turkmenistan
245 Turks Islands
125 Tuvalu

U

573 Uganda
456 Ukraine
456 Ukranian S.S.R.
404 Ulster
545 Union of South Africa
—— Union of Soviet Socialist Republics (U.S.S.R.) (see individual republics)
629 United Arab Emirates
519 United Arab Republic
400 United Kingdom
000 United States
102 U.S. Virgin Islands
999 Unknown
520 Upper Volta
375 Uruguay
579 Urundi
084 Utah
634 Uzbekistan
634 Uzbek S.S.R.

V

721 Vanuatu
447 Vatican City
545 Venda
321 Venezuela
004 Vermont
665 Vietnam
245 Virgin Islands (British)
102 Virgin Islands (U.S.)
023 Virginia

W

137 Wake Island
402 Wales
449 Wallachia
721 Wallis
093 Washington (state)
022 Washington D.C.
530 West Africa, NOS
539 West African Countries, other
631 West Bank
431 West Germany
245 West Indies, NOS (see also individual islands)
639 West Pakistan
024 West Virginia
499 Western Europe, NOS
520 Western (Spanish) Sahara
725 Western Samoa
457 White Russia
245 Windward islands
051 Wisconsin
082 Wyoming

Y

629 Yemen
629 Yemen, People's Democratic Republic of
453 Yugoslavia (former Yugoslavia region)
225 Yukon Territory

Z

541 Zaire
549 Zambia
571 Zanzibar
547 Zimbabwe

RACE 1

Item Length: 2
NAACCR Item #: 160
NAACCR Name: Race 1

Race (and ethnicity) is defined by specific physical, hereditary and cultural traditions or origins, not necessarily by birthplace, place of residence, or citizenship. 'Origin' is defined by the US Census Bureau as the heritage, nationality group, lineage, or in some cases, the country of birth of the person or the person's parents or ancestors before their arrival in the United States.

All resources in the facility, including the medical record, face sheet, physician and nursing notes, photographs, and any other sources, must be used to determine race. If a facility does not print race in the medical record but does maintain it in electronic form, the electronic data must also be reviewed. Recommendation: document how the race code was determined in a text field.

The data item Race 1 identifies the primary race of the patient.

Codes

01 White
02 Black
03 American Indian, Aleutian, Alaskan Native or Eskimo (includes all indigenous populations of the Western hemisphere)
04 Chinese
05 Japanese
06 Filipino
07 Hawaiian
08 Korean (Effective with 1/1/1988 dx)
09 Asian Indian, Pakistani (Effective with 1/1/1988 dx)
10 Vietnamese (Effective with 1/1/1988 dx)
11 Laotian (Effective with 1/1/1988 dx)
12 Hmong (Effective with 1/1/1988 dx)
13 Kampuchean (including Khmer and Cambodian) (Effective with 1/1/1988 dx)
14 Thai (Effective with 1/1/1994 dx)
20 Micronesian, NOS (Effective with 1/1/1991)
21 Chamorran (Effective with 1/1/1991 dx)
22 Guamanian, NOS (Effective with 1/1/1991 dx)
25 Polynesian, NOS (Effective with 1/1/1991 dx)
26 Tahitian (Effective with 1/1/1991 dx)
27 Samoan (Effective with 1/1/1991 dx)
28 Tongan (Effective with 1/1/1991 dx)
30 Melanesian, NOS (Effective with 1/1/1991 dx)
31 Fiji Islander (Effective with 1/1/1991 dx)
32 New Guinean (Effective with 1/1/1991 dx)
96 Other Asian, including Asian, NOS and Oriental, NOS (Effective with 1/1/1991 dx)

97 Pacific Islander, NOS (Effective with 1/1/1991 dx)
98 Other
99 Unknown

SEER Participants San Francisco, San Jose-Monterey, and Los Angeles are permitted to use codes 14 and 20-97 for cases diagnosed after January 1, 1987. Greater California is permitted to use codes 14 and 20-97 for cases diagnosed after January 1, 1988. Other SEER participants may choose to recode cases diagnosed prior to 1991 using 14 and 20-97 if all cases in the following race codes are reviewed: 96 Other Asian; 97 Pacific Islander, NOS; 98 Other; and 99 unknown.

Coding Instructions

1. Code the primary race(s) of the patient in fields Race 1, Race 2, Race 3, Race 4, and Race 5. The five race fields allow for the coding of multiple races consistent with the Census 2000. Rules 2 - 8 further specify how to code Race 1, Race 2, Race 3, Race 4 and Race 5. See Editing Guidelines below for further instructions.

2. If a person's race is a combination of white and any other race(s), code the appropriate other race(s) first and code white in the next race field.

3. If a person's race is a combination of Hawaiian and any other race(s), code Race 1 as 07 Hawaiian and code the other races in Race 2, Race 3, Race 4, and Race 5 as appropriate.

   ***Example**:* Patient is described as Japanese and Hawaiian. Code Race 1 as 07 Hawaiian, Race 2 as 05 Japanese, and Race 3 through Race 5 as 88.

4. If the person is not Hawaiian, code Race 1 to the first stated non-white race (02-98).

   Example: Patient is stated to be Vietnamese and Black. Code Race 1 as 10 Vietnamese, Race 2 as 02 Black, and Race 3 through Race 5 as 88.

   ***Note*:** in the following scenarios, only the race code referred to in the example is coded. For cases diagnosed after January 1, 2000, all race fields must be coded.

5. The fields Place of Birth, Race, Marital Status, Name, Maiden Name, and Hispanic Origin are inter-related. Use the following guidelines in priority order:

   a. Code the patient's stated race, if possible. Refer to Appendix "Race and Nationality Descriptions from the 2000 Census and Bureau of Vital Statistics" for guidance.

      ***Example 1**:* Patient is stated to be Japanese. Code as 05 Japanese.

      Example 2: Patient is stated to be German-Irish. Code as 01 White.

      Example 3: Patient is described as Arabian. Code as 01 White.

***Exception**:* When the race is recorded as Oriental, Mongolian, or Asian (coded to 96 Other Asian) and the place of birth is recorded as China, Japan, the Philippines, or another Asian nation, code the race based on birthplace information.

Example 4: The person's race is recorded as Asian and the place of birth is recorded as Japan. Code race as 05 Japanese because it is more specific than 96 Asian, NOS.

Example 5: The person describes himself as an Asian-American born in Laos. Code race as 11 Laotian because it is more specific than 96 Asian, NOS.

6. If the patient's race is determined on the basis of the races of relatives, there is no priority to coding race, other than to list the non-white race(s) first.

   ***Example*:** The patient is described as Asian-American with Korean parents. Code race as 08 Korean because it is more specific than 96 Asian [-American].

7. If no race is stated in the medical record, or if the stated race cannot be coded, review the documentation for a statement of a race category.

   ***Example 1**:* Patient described as a black female. Code as 02 Black.

   Example 2: Patient describes herself as multi-racial (nothing more specific) and nursing notes say "African-American." Code as 02 Black.

   Example 3: Patient states she has a Polynesian mother and Tahitian father. Code Race 1 as 25 Polynesian, Race 2 as 26 Tahitian and Race 3 through Race 5 as 88.

8. If race is unknown or not stated in the medical record and birth place is recorded, in some cases race may be inferred from the nationality. Refer to the Appendix entitled "Race and Nationality Descriptions from the 2000 Census and Bureau of Vital Statistics" to identify nationalities from which race codes may be inferred.

   Example 1: Record states: "this native of Portugal..." Code race as 01 White per the Appendix.

   ***Example 2**:* Record states: "this patient was Nigerian..." *Code race as 02 Black* per the Appendix.

   Exception: If the patient's name is incongruous with the race inferred on the basis of nationality, code Race 1 through Race 5 as 99, Unknown.

   Example 1: Patient's name is Siddhartha Rao and birthplace is listed as England. Code Race 1 through Race 5 as 99 Unknown.

Example 2: Patient's name is Ping Chen and birthplace is Ethiopia. *Code* Race 1 through Race 5 as 99 Unknown.

9. Use of patient name in determining race:

   a. Do not code race from name alone, especially for females with no maiden name given.

   b. In general, a name may be an indicator of a racial group, but should not be taken as the only indicator of race.

   c. A patient name may be used to identify a more specific race code.

      ***Example 1*:** Race reported as Asian, name is Hatsu Mashimoto. Code race as 05 Japanese.

      ***Example 2**:* Birthplace is reported as Guatemala and name is Jose Chuicol [name is identified as Mayan]. Code race as 03 Native American

   d. A patient name may be used to infer Spanish ethnicity or place of birth, but a Spanish name alone (without a statement about race or place of birth) cannot be used to determine the race code. Refer to ethnicity guidelines for further information.

      Example: Alice Gomez is a native of Indiana (implied birthplace: United States). Code Race 1 through Race 5 as 99 Unknown, because nothing is known about her race..

10. Persons of Spanish or Hispanic origin may be of any race, although persons of Mexican, Central American, South American, Puerto Rican, or Cuban origin are usually white. Do NOT code a patient stated to be Hispanic or Latino as 98 Other Race in Race 1 and 88 in Race 2 through Race 5.

    Example: Sabrina Fitzsimmons is a native of Brazil. Code race as 01 White per Appendix.

11. When the race is recorded as Negro or African-American, code race as 02 Black.

12. Code 03 should be used for any person stated to be Native American or [western hemisphere] Indian, whether from North, Central, South, or Latin America. For Central, South, or Latin American Indians, see additional ethnicity coding guidelines under Spanish Surname or Origin.

13. Death certificate information may be used to supplement antemortem race information only when race is coded unknown in the patient record or when the death certificate information is more specific.

Example 1: In the cancer record Race 1 through Race 5 are coded as 99 Unknown. The death certificate states race as black. Change cancer record for Race 1 to 02 Black and Race 2 through Race 5 to 88.

Example 2: Race 1 is coded in the cancer record as 96 Asian. Death certificate gives birthplace as China. Change Race 1 in the cancer record to 04 Chinese and code Race 2 through Race 5 as 88.

EDITING GUIDELINES

All tumors for the same patient should have the same race code(s).

Cases diagnosed prior to January 1, 2000:

For cases diagnosed prior to January 1, 2000, Race 2 through Race 5 must be blank **unless** the patient has multiple records and at least one primary is diagnosed on or after January 1, 2000. In this case, the race codes must be identical on each record.

Cases diagnosed on or after January 1, 2000:

1. If only one race is reported for the person, use code 88 for the remaining race fields (Race 2 - Race 5).

2. If the patient is multiracial, code all races using items Race 1 through Race 5.

3. If any race code is 99 Unknown, then all race codes must be 99 Unknown.

4. If Race 1 is 01-98, Race 2 through Race 5 cannot be 99.

5. If more than Race 1 is coded, and if any Race 2 through Race 5 is 88, then all subsequent race codes must be 88.

6. A unique race code (other than 88, 99 or blank {for diagnoses prior to 01/01/2000}) can be coded only once in Race 1 through Race 5. For example, do not code 01 White in Race 1 for one parent and 01 White in Race 2 for the other parent.

7. Document the specified race in a remarks field when any of the race fields are coded as 96 Other Asian, 97 Pacific Islander, NOS or 98 Other Race and a more specific race is given that is not included in the list of race codes. If there is no information on race in the medical record, document that there is no race information in a remarks field. If the information in the medical record is not consistent (for example, if the patient is identified as black in nursing notes and white in a dictated physical exam), document why the coded race was chosen.

   Note: Do not code 96 Other Asian in a subsequent race field if a specific Asian race(s) has already been coded.

***Example 1**:* Patient is described as Asian in a consult note and as second generation Korean American in the history. Code Race 1 as 08 Korean and Race 2 through Race 5 as 88.

HISTORY

1. Race 1 is the field used to compare with race data on cases diagnosed prior to January 1, 2000.

2. For cases diagnosed prior to January 1, 2000, Race 2 through Race 5 must be blank **unless** the patient has multiple records with at least one primary diagnosed on or after January 1, 2000. In this case, the race codes must be identical on each record..

3. Codes 08 - 13 became effective with diagnoses on or after January 1, 1988.

4. Code 14 became effective with diagnoses on or after January 1, 1994.

5. Codes 20 - 97 became effective with diagnoses on or after January 1, 1991. SEER participants in San Francisco, San Jose-Monterey, and Los Angeles are permitted to use codes 14 and 20 - 97 for cases diagnosed after January 1, 1987; Greater California is permitted to use codes 14 and 20-97 for cases diagnosed after January 1, 1988. Other SEER participants may choose to recode cases diagnosed prior to 1991 using 14 and 20-97 if all cases in the following race codes are reviewed: 96 Other Asian; 97 Pacific Islander, NOS; 98 Other; and 99 unknown.

MORPHOLOGY

Section IV, Field 06, Introduction

Morphology

The *International Classification of Diseases for Oncology*, Second Edition (ICD-O-2), is used for coding the morphology of all cancers. In the Alphabetic Index all morphology codes are indicated by an 'M-' preceding the code number. The 'M-' should not be coded. The '/' appearing between the histology and behavior codes is also not recorded.

Morphology is a 6-digit code consisting of three parts:

A Histologic type (4 digits)
B Behavior code (1 digit)
C Grading or differentiation; or for lymphomas and leukemias, designation of T-cell, B-cell, null cell, or NK cell (1 digit)

The morphology of a tumor can be coded only after the determination of multiple primaries has been completed. (See pages 7-37 for rules to determine the number of primaries.)

To code morphology (histology, behavior and grade), use the best information from the entire pathology report (microscopic description, final diagnosis, comments).

General Rule

If the final diagnosis gives a specific histology, code it. Similarly, if grade is specified in the final diagnosis, code it. Exceptions are found on the following pages under "Histologic Type," "Behavior Code," and "Grade, Differentiation, or Cell Indicator."

Histologic Type

The morphology can be coded only after the determination of multiple primaries has been completed. (See pages 7-37 for rules to determine the number of primaries.)

In coding histologic type, usually the FINAL pathologic diagnosis is coded. All pathology reports for the primary under consideration should be used. Although the report from the most representative tissue is usually the best, sometimes all of the cancerous tissue may be removed at biopsy and therefore the report from the biopsy must be used.

If a definitive statement of a more specific histologic type (higher code in ICD-O-2) is found in the microscopic description or in the comment, the more specific histologic diagnosis should be coded.

Code the histology using the following rules:

Single lesion – same behavior

1. Code the histologic type using the following rules in sequence.

   A. a combination code if one exists

      Examples of when to use the combination code

      "...predominantly lobular with a ductal component." *Use the combination code for lobular and ductal carcinoma (8522/3).*

      "Invasive breast carcinoma – predominantly lobular with foci of ductal carcinoma." *Use the combination code for lobular and ductal carcinoma (8522/3).*

   B. the more specific term if one is an 'NOS' term (carcinoma) and the other term is more specific

      Examples of when to use the more specific codes

      "Adenocarcinoma (8140/3) of the sigmoid colon, predominantly mucin-producing." *Code to mucin-producing adenocarcinoma (8481/3).*

      "Invasive carcinoma, probably squamous cell type." *Code squamous cell (8070/3) since it is more specific than carcinoma (8010/3).*

      "Adenocarcinoma of prostate, with cribriform differentiation." *Code cribriform carcinoma (8201/3) since it is more specific than adenocarcinoma.*

   C. the majority of the tumor if Rule 1A or Rule 1B above cannot be used

Terms that indicate a majority of tumor	Terms that do not indicate a majority of tumor
"predominantly..."	"...with foci of..."
"...with features of..."	"...focus of/focal..."
"...major"	"...areas of..."
"type"‡	"...elements of..."
"with ... differentiation"‡	"...component"‡

| ‡ Terms approved for use effective with 1/1/1999 diagnoses and after.

continued...

***Single lesion – same behavior Rule 1C (continued*)**

Ignore terms that do not indicate a majority of tumor. When both terms are specific (in other words, not NOS) and no combination code exists, code the majority of the tumor.

Example of majority tumors:

"Predominantly leiomyosarcoma associated with foci of well-developed chondrosarcoma." *Code the majority tumor – leiomyosarcoma (8890/3).*

2. Histologies with the same behavior code are coded to the higher histology code in ICD-O-2 unless a combination histology code is available. Rule 1 takes precedence over rule 2.

   Example Ductal carcinoma (8500/3) and medullary carcinoma (8510/3) would be coded to the higher number (8510/3).

Single lesion – different behaviors

1. Histologies with different behavior codes are coded to the histology associated with the malignant behavior.

   Example Squamous cell carcinoma in situ (8070/2) and papillary squamous cell carcinoma (8052/3) would be coded papillary squamous cell carcinoma (8052/3).

   ***Exception*:** If the histology of the invasive component is an 'NOS' term (e.g., carcinoma, adenocarcinoma, melanoma, sarcoma), then use the specific term associated with the in situ component and an invasive behavior code.

   Example of exception: Squamous cell carcinoma in situ (8070/2) with areas of invasive carcinoma (8010/3) would be coded squamous cell carcinoma (8070/3).

Multiple lesions – considered a single primary

1. If one lesion is stated to be an 'NOS' term (e.g., carcinoma, adenocarcinoma, melanoma, sarcoma) and the second lesion is an associated but more specific term (e.g., large cell carcinoma, mucinous adenocarcinoma, spindle cell sarcoma, respectively) code to the more specific term.

2. For colon and rectum primaries:

   When an adenocarcinoma (8140/_; in situ or invasive) arises in the same segment of the colon or rectum as an adenocarcinoma in a polyp (8210/_, 8261/_, 8263/_), code as adenocarcinoma (8140/_).

   When a carcinoma (8010/_; in situ or invasive) arises in the same segment of the colon or rectum as a carcinoma in a polyp (8210), code as carcinoma (8010/_).

3. If the histologies of multiple lesions can be represented by a combination code, use that code.

NEW HISTOLOGY CODES FOR LYMPHOMAS AND LEUKEMIAS

The following new terms, synonyms and codes have been added to the *International Classification of Diseases for Oncology, Second Edition*.

New Lymphoma Terms. *Effective for cases diagnosed January 1, 1995, and after.*

ICD-O-2 Code	Term
9673/3	Mantle cell lymphoma (*)
9688/36	T-cell rich B-cell lymphoma
9708/3	Subcutaneous panniculitic T-cell lymphoma
9710/3	Marginal zone lymphoma, NOS
9714/3	Anaplastic large cell lymphoma (ALCL), CD30+ (*)
9715/3	Mucosal-Associated Lymphoid Tissue (MALT) lymphoma
9716/3	Hepatosplenic OO (gamma - delta) cell lymphoma
9717/3	Intestinal T-cell lymphoma
	Enteropathy associated T-cell lymphoma

New Leukemia Terms *Effective for cases diagnosed January 1, 1998, and after.*

ICD-O-2 Code	Term
9821/3	Acute lymphoblastic leukemia, L1 type (*)
	Acute lymphocytic leukemia, L1 type (*)
	Acute lymphoid leukemia, L1 type (*)
	Acute lymphatic leukemia, L1 type (*)
	Lymphoblastic leukemia, L1 type (*)
	FAB L1 (*)
9826/3	FAB L3 (*)
9828/3	Acute lymphoblastic leukemia, L2 type
	Acute lymphocytic leukemia, L2 type
	Acute lymphoid leukemia, L2 type
	Acute lymphatic leukemia, L2 type
	Lymphoblastic leukemia, L2 type
	FAB L2
9840/3	FAB M6 (*)
9861/3	Acute myeloid leukemia, NOS (*)
	Acute myeloblastic leukemia, NOS (*)
	Acute granulocytic leukemia, NOS (*)
	Acute myelogenous leukemia, NOS (*)
	Acute myelocytic leukemia, NOS (*)
9866/3	FAB M3 (*)
9867/3	Acute myelomonocytic leukemia, NOS (*)
	FAB M4 (*)
9871/3	Acute myelomonocytic leukemia with eosinophils
	FAB M4E

continued

(*) new term(s) for an existing number

NEW HISTOLOGY CODES FOR LYMPHOMAS AND LEUKEMIAS, continued

9872/3	Acute myeloid leukemia, minimal differentiation
	Acute myeloblastic leukemia, minimal differentiation
	Acute granulocytic leukemia, minimal differentiation
	Acute myelogenous leukemia, minimal differentiation
	Acute myelocytic leukemia, minimal differentiation
	FAB M0
9873/3	Acute myeloid leukemia without maturation
	Acute myeloblastic leukemia without maturation
	Acute granulocytic leukemia, without maturation
	Acute myelogenous leukemia, without maturation
	Acute myelocytic leukemia, without maturation
	FAB M1
9874/3	Acute myeloid leukemia with maturation
	Acute myeloblastic leukemia with maturation
	Acute granulocytic leukemia, with maturation
	Acute myelogenous leukemia, with maturation
	Acute myelocytic leukemia, with maturation
	FAB M2
9891/3	FAB M5 (*)
	FAB M5A (*)
	FAB M5B (*)
9910/3	Megakaryoblastic leukemia, NOS (C42.1)
	FAB M7

(*) new term(s) for an existing number

BEHAVIOR CODE

Section IV, Field 06.B

Behavior Code

Code
2 Carcinoma in situ; intraepithelial; noninfiltrating; noninvasive
3 Malignant

The usual behavior codes are listed in both the numeric and alphabetic indices of ICD-O-2, following the histology code. If a pathologist calls a cancer in situ ('/2') or malignant ('/3') when it is not listed as such in ICD-O-2, code the stated behavior. (See Table 1, pages xxvi and xxvii, in ICD-O-2.)

SEER does not accept behavior codes 0, 1, 6, or 9. If the only specimen was from a metastatic site, code the histologic type of the metastatic site and code a '3' for the behavior code. The primary site is assumed to have the same histologic type as the metastatic site.

Code the fact of invasion, no matter how limited. Even a pathological diagnosis qualified as "micro-invasive" must be coded malignant, '3.'

Note that in situ is a concept based on histologic evidence. Therefore, clinical evidence alone cannot justify the use of this term.

Synonymous terms for in situ (behavior code '2') are:

| Bowen's disease (not reportable for C44.0-C44.9)
Clark's level 1 for melanoma (limited to epithelium)
confined to epithelium
| Hutchinson's melanotic freckle, NOS (C44._)
| intracystic non-infiltrating
intraductal
intraepidermal, NOS
intraepithelial, NOS
involvement up to but not including the basement membrane
| lentigo maligna (C44._)
| lobular neoplasia (C50._)
| lobular, noninfiltrating (C50._)
noninfiltrating
noninvasive
no stromal invasion
| papillary, noninfiltrating or intraductal
| precancerous melanosis (C44._)
| Queyrat's erythroplasia (C60._)
VAIN III (C52.9)
VIN III (C51._)

| The following in situ diagnoses are not reportable to SEER after 1/1/1996:
| CIN III (C53._)
| Carcinoma in situ of the cervix (C53._)

GRADE, DIFFERENTIATION, OR CELL INDICATOR

Section IV, Field 06.C

Grade, Differentiation

Code
1 Grade I; grade i; grade 1; well differentiated; differentiated, NOS
2 Grade II; grade ii; grade 2; moderately differentiated; moderately well differentiated; intermediate differentiation
3 Grade III; grade iii; grade 3; poorly differentiated; dedifferentiated
4 Grade IV; grade iv; grade 4; undifferentiated; anaplastic
5 T-cell; T-precursor
6 B-cell; Pre-B; B-Precursor
7 Null cell; Non T-non B;
8 N K cell (natural killer cell)
9 Cell type not determined, not stated or not applicable

Code '8' was implemented effective with cases diagnosed 1/1/95 and after. The grading or differentiation— or for lymphomas and leukemias the designation of T-cell, B-cell, null cell, or NK (natural killer) cell—is described on updated pages xxix, xxxv and 23 of ICD-O-2.

Code the grade or degree of differentiation as stated in the *FINAL* pathologic diagnosis. If the grade or degree of differentiation is *not* stated in the final pathologic diagnosis, code the grade or degree of differentiation as given in the microscopic description or comment.

Example Microscopic Description: Moderately differentiated squamous cell carcinoma with poorly differentiated areas
Final Pathologic Diagnosis: Moderately differentiated squamous cell carcinoma
Code to the final diagnosis: Moderately differentiated, '2.'

If a diagnosis indicates two different grades or degrees of differentiation (e.g., "well and poorly differentiated," "grade II-III," or "well differentiated grade II"), code to the higher grade code (Rule 6, page *xxvii* or *xlii* in ICD-O-2). Always code the higher grade/differentiation code, even if it does not represent the majority of the lesion.

Example Final Diagnosis: Predominantly grade II, focally grade III.
Code as grade III.

If a needle biopsy or incisional biopsy of a primary site has a differentiation given and the excision or resection does not, code the information from the needle/incisional biopsy.

If there is a difference between the grade given for a biopsy of the primary site and the grade given for the resected specimen, use the higher grade.

If there is no grade provided for the primary site, code as 9, even if a grade is given for a metastatic site.

Usually there will be no statement as to grade for in situ lesions. However, if a grade is stated, it should be coded.

When there is variation in the usual terms for degree of differentiation, code to the higher grade as specified below:

Term	Grade	Code
Low grade	I-II	2
Medium grade; intermediate grade	II-III	3
High grade	III-IV	4
Partially well differentiated	I-II	2
Moderately undifferentiated	III	3
Relatively undifferentiated	III	3

Occasionally a grade is written as "2/3" or "2/4," meaning this is grade 2 of a 3-grade system or grade 2 of a 4-grade system, respectively. To code in a three grade system, refer to the terms "low grade," "medium grade," and "high grade," above.

Do not code low, intermediate or high grade for lymphomas. See the note on page 104.

Coding Grade for Prostate Cases

Usually prostate cancers are graded using Gleason's score or pattern. Gleason's grading for prostate primaries is based on a 5-component system (5 histologic patterns). Prostatic cancer generally shows two main histologic patterns. The primary pattern—that is, the pattern occupying greater than 50% of the cancer—is usually indicated by the first number of the Gleason's grade and the secondary pattern is usually indicated by the second number. These two numbers are added together to create a pattern score, ranging from 2 to 10.

If the pathologist gives only one number and it is less than or equal to 5, assume that it describes a pattern. If only one number is given and it is greater than 5, assume that it is a score. If there are two numbers, assume that they refer to two patterns (the first number being the primary and the second number being the secondary) and sum them to obtain the score.

If expressed as a specific number out of a total of 10, the first number given is the score, e.g., Gleason's 3/10 would be a score of 3.

1. If Gleason's score (2-10) is given, code as follows:

Gleason's score		Grading
2, 3, 4	I	Well Differentiated
5, 6, 7	II	Moderately Differentiated
8, 9, 10	III	Poorly Differentiated

2. If Gleason's pattern (1-5) is given, code as follows:

Gleason's pattern		Grading
1, 2	I	Well Differentiated
3	II	Moderately Differentiated
4, 5	III	Poorly Differentiated

If not identified as Gleason's, assume a non-Gleason grade system and code appropriately. If both are given, code the non-Gleason grade.

GRADE, DIFFERENTIATION, OR CELL INDICATOR (cont.)
Section IV, Field 06.C

Coding Grade for Breast Cases

The following statement was approved by the Uniform Data Standards Committee of NAACCR on 12/13/1995:

> Effective with breast cancer cases diagnosed 1/1/96 and later, when the terms "low," "intermediate," and "high" grade are used and the grading system is specified as (Scarff) Bloom-Richardson, code [the sixth digit] as grade code 1, 2, and 3 respectively. This is an exception to the usual rule for all other grading systems that "low," "intermediate," and "high" are coded 2, 3, and 4 respectively. In the (Scarff) Bloom-Richardson system, if grades 1, 2, and 3 are specified, these should be coded 1, 2 and 3 respectively.

Use grade or differentiation information from the breast pathology report in the following order:

1. Terminology (differentiation: well, moderately, poorly, moderately-well, etc.; grade: i, ii, iii, etc.)
2. Histologic grade (grade i, grade ii, grade iii)
3. Bloom-Richardson scores (range 3-9, converted to grade) (see below)
4. Bloom-Richardson grade (low, intermediate, high)
5. Nuclear grade only

The Bloom-Richardson grading scheme is a semi-quantitative grading method based on three morphologic features of "*invasive no-special-type"* breast cancers. The morphologic features are:

1) degree of tumor tubule formation
2) tumor mitotic activity
3) nuclear pleomorphism of tumor cells (nuclear grade)

For details of the scoring system, see Dalton, Leslie W et al. "Histologic grading of breast carcinoma" in *Cancer* 1994, Vol 73(11), page 2766, Table 2.

To obtain the final Bloom-Richardson score, add score from tubule formation plus number of mitotic score, plus score from nuclear pleomorphism**.** Seven possible scores are condensed into three BR grades. The three grades then translate into well differentiated (BR low grade), moderately differentiated (BR intermediate grade), and poorly differentiated (BR high grade).

CONVERSION TABLE FOR BLOOM RICHARDSON (BR) SCORE AND GRADE

BR combined scores	Differentiation/BR Grade	Grade Code
3, 4, 5	Well-differentiated (BR low grade)	1
6, 7	Moderately differentiated (BR intermediate grade)	2
8, 9	Poorly differentiated (BR high grade)	3

Note: Bloom-Richardson score may also be called modified Bloom-Richardson, Scarff-Bloom-Richardson, SBR Grading, BR grading, Elston-Ellis modification of Bloom-Richardson score, the Nottingham modification of Bloom Richardson score, Nottingham-Tenovus or Nottingham grade.

Grading of Non-Histologically Proven Cases

Where there is no tissue diagnosis, it may still be possible to establish the grade of a tumor through Magnetic Resonance Imaging (MRI) or Positron Emission Tomography (PET). In particular, it is now possible to grade brain tumors by this method. Thus, if there is no tissue diagnosis, but there is a grade/differentiation available from an MRI or PET report, code grade based on those reports. If there is a tissue diagnosis, grade should be from the pathology report only.

SEER Versus AJCC Grade Requirements

SEER requires grade for all primaries if available. According to the *Manual for Staging of Cancer*, Fifth Edition, from the American Joint Committee on Cancer, grade of tumor is required for the following sites to be staged:

C48._	Retroperitoneum and peritoneum (soft tissue sarcoma)
C38.0-C38.3	Heart and mediastinum (soft tissue sarcoma)
C40._, C41._	Bone
C47._, C49._	Connective, Subcutaneous and other soft tissue
C61.9	Prostate gland
C73.9	Thyroid (undifferentiated carcinoma only)

For Lymphomas and Leukemias, Designation of T-cell, B-cell, Null Cell, or NK Cell

Code *ANY* statement of T-cell, B-cell, null cell, or NK cell involvement whether or not marker studies are documented in the patient record. (See page xxiii of ICD-O-2.) Additional terms that should be coded are T-precursor, T-cell phenotype and gamma-delta T (code 5); B-precursor, B-cell phenotype and Pre-B (code 6); non-T–non-B and common cell (code 7); and natural killer (code 8).

For lymphomas and leukemias, information on T-cell, B-cell, null cell, or NK cell has precedence over information on grading or differentiation.

For lymphomas, do not code the descriptions "high grade," "low grade," or "intermediate grade" in the Grade, Differentiation, or Cell Indicator field. These terms refer to categories in the Working Formulation of lymphoma diagnoses and not to histologic grade.

Grading Astrocytomas

Astrocytomas are graded according to ICD-O-2 rules in this field. The use of World Health Organization coding of aggressiveness is reserved for assignment of grade for staging. In the absence of other information on grade, code cases as follows:

Term	ICD-O-2 6th digit
Anaplastic astrocytoma	4
Astrocytoma (low grade)	2
Glioblastoma multiforme	9
Pilocytic astrocytoma	9

Term	ICD-O-2 6th digit
Astrocytoma Grade 1	1
Astrocytoma Grade 2	2
Astrocytoma Grade 3	3
Astrocytoma Grade 4	4

APPENDIX C
SITE-SPECIFIC SURGERY CODES

BREAST
C50.0-C50.9

Code:

No Cancer-Directed Surgery/Unknown

00 No surgical procedure
01 Incisional, needle, or aspiration biopsy of other than primary site
02 Incisional, needle, or aspiration biopsy of primary site
03 Exploratory ONLY (no biopsy)
04 Bypass surgery, -ostomy ONLY (no biopsy)
05 Exploratory ONLY AND incisional, needle or aspiration biopsy of primary site or other sites
06 Bypass surgery, -ostomy ONLY AND incisional, needle or aspiration biopsy of primary site or other sites
07 Non-cancer directed surgery, NOS
09 Unknown if surgery done

Type of Cancer-Directed Surgery

10 Partial/less than total mastectomy (includes segmental mastectomy, lumpectomy, quadrantectomy, tylectomy, wedge resection, nipple resection, excisional biopsy, or partial mastectomy, NOS) WITHOUT dissection of axillary lymph nodes

20 Partial/less than total mastectomy WITH dissection of axillary lymph nodes

30 Subcutaneous mastectomy WITH/WITHOUT dissection of axillary nodes

40 Total (simple) mastectomy (breast only) WITHOUT dissection of axillary lymph nodes

50 Modified radical/total (simple) mastectomy (may include portion of pectoralis major) WITH dissection of axillary lymph nodes

60 Radical mastectomy WITH dissection of majority of pectoralis major WITH dissection of axillary lymph nodes

70 Extended radical mastectomy (code 60 PLUS internal mammary node dissection; may include chest wall and ribs)

80 Surgery of regional and/or distant site(s)/node(s) ONLY

90 Mastectomy, NOS; Surgery, NOS

APPENDIX C
SITE-SPECIFIC SURGERY CODES

BREAST (cont'd)

NOTE: Codes '10'-'78' apply to unilateral resection of primary cancer.
Ignore removal of fragments or tags of muscle; removal of pectoralis minor; resection of pectoralis muscles, NOS; and resection of fascia with no mention of muscle.
Oophorectomy, adrenalectomy, and hypophysectomy will be coded as Endocrine (Hormone/Steroid) Therapy.
Codes '10'-'90' have priority over codes '00'-'09'.
Codes '10'-'78' have priority over codes '80'-'90'.
Surgery of primary not included in any category should be coded '90'.
In the range '10'-'78', the higher code has priority.
Codes '01'-'07' have priority over code '09'.
In the range '01'-'06', the higher code has priority.
Codes '01'-'07' and '09' cannot be used in combination with codes '10'-'90'.
Codes '01'-'06' have priority over code '07'.
Second digit is to be coded '8' when reconstructive surgery of the primary site is done as part of the planned first course of therapy.

SEER Program Code Manual (3rd Edition, 1998)
Site-Specific Surgery Codes: Breast C50.0 - C50.9
(SEER Appendix C, pp. C-63 and C-64; NAACCR item # 1646)

These codes apply to cancers diagnosed 1998-2002 from SEER/NAACCR and all years of pathology data from any source. Any pathology data prior to 1998 or after 2002 may need to be converted since SEER/NAACCR coding is different in these years. The SCC has added some information to the SEER/NAACCR descriptions.

No Cancer Directed Surgery/Unknown (includes some biopsies)

00 Non-excisional Biopsy or No Cancer Directed Surgery
This category includes incisional, needle, or aspiration biopsies, but does not include excisional biopsies. Type of biopsy is recorded elsewhere in the Pathology Information File.

00 Non-excisional Biopsy or No Cancer Directed Surgery

Type of Cancer Directed Surgery/Surgery of Primary Site

These codes should be used when the intent of the surgical procedure was to remove the entire breast lesion REGARDLESS of whether the final margin status was positive or negative and REGARDLESS of whether the final diagnosis was benign or malignant.

10-17 Partial mastectomy, NOS; less than total mastectomy NOS
This category allows for detail if known. If the actual procedure is known, it should be coded as 11 to 17. Note that excisional biopsies are included here as 12. If the exact procedure is not known, code as 10.

Procedures coded as 10-17 remove the gross primary tumor and some of the breast tissue around the tumor (breast-conserving or preserving procedure). There may be microscopic residual tumor or positive surgical margins. For pathology data, enter the lymph node data in variables VIII.29 and VIII.38.

10 Partial mastectomy, NOS; less than total mastectomy NOS (includes segmental mastectomy, lumpectomy, quadrantectomy, tylectomy, wedge resection, nipple resection, excisional biopsy)

- 11 Nipple resection
- 12 Lumpectomy or excision biopsy
- 13 Re-excision of the biopsy site for gross or microscopic residual disease
- 14 Wedge resection
- 15 Quadrantectomy
- 16 Segmental mastectomy
- 17 Tylectomy

30 Subcutaneous mastectomy
A Subcutaneous mastectomy is the removal of breast tissue with the nipple and areolar complex or overlying skin. This procedure is rarely performed to treat malignancies. For pathology data, use VIII.29 and VII.38 to report removal of lymph nodes.

30 Subcutaneous mastectomy

40 Total (simple) mastectomy
A simple mastectomy removes all breast tissue, the nipple, and areolar complex. An axillary dissection is not done. A simple mastectomy WITH axillary dissection is coded as 50 (modified radical mastectomy) and node information should also be given in VIII.29 and VII.38. Codes 41 and 42 may be useful for identifying women with prophylactic mastectomies.

40 Total (simple) mastectomy NOS

41 WITHOUT removal of uninvolved contralateral breast
42 WITH removal of uninvolved contralateral breast

50 Modified radical mastectomy
Removes all breast tissue, the nipple, the areolar complex, and an en bloc resection of the axillary lymph nodes. The specimen may or may not include a portion of the pectoralis major muscle. Total mastectomy and axillary dissection is often used synonymously with modified radical mastectomy. For pathology data, lymph node information should also be included in variables VIII.29 and VII.38.

50 Modified radical mastectomy NOS

51 WITHOUT removal of uninvolved contralateral breast
52 WITH removal of uninvolved contralateral breast

60 Radical mastectomy
Removes all of the breast tissue, nipple, areolar complex, a variable amount of skin, pectoralis minor muscle, and pectoralis major muscle. Includes an en bloc resection of the axillary lymph nodes. This procedure was used prior to the introduction of partial mastectomy. It is now used very infrequently and only for advanced local breast cancer without evidence of distant metastatic disease. For pathology data, lymph node data should also be included in variables VIII.29 and VII.38.

60 Radical mastectomy NOS

61 WITHOUT removal of uninvolved contralateral breast
62 WITH removal of uninvolved contralateral breast

70 Extended radical mastectomy
This is code 60 with the addition of internal mammary node dissection and may include chest wall and ribs. Removes all of the breast tissue, nipple, areolar complex, variable amounts of skin, pectoralis minor, and pectoralis major. Includes removal of internal mammary lymph nodes and an en bloc resection of the axillary lymph nodes. This procedure would be very unlikely to be used currently. Biopsy of internal mammary nodes may be performed as part of breast surgery, particularly when a sentinel node procedure is employed. In this situation DO NOT use code 70. If an internal mammary node biopsy is performed, procedure code 10 (partial mastectomy) or procedure code 50 (total mastectomy) should be used. For pathology data, lymph node data should included in variables VIII.29 and VII.38.

70 Extended radical mastectomy

71 WITHOUT removal of uninvolved contralateral breast
72 WITH removal of uninvolved contralateral breast

80 Mastectomy, NOS
This code should be used only when it is known that a mastectomy was done, but the type is unknown. Prior to 1998 SEER collapsed mastectomy NOS and surgery NOS into the same category. It may be difficult to split these out retrospectively, so use code 90 when not sure.

80 Mastectomy, NOS

90 Surgery, NOS
This code should be used when it is known that surgery was done, but the type is unknown. Prior to 1998 SEER collapsed mastectomy NOS and surgery NOS into the same category. It may be difficult to split these out retrospectively, so use code 90 when not sure.

90 Surgery, NOS

99 Unknown
If it is unknown whether surgery was performed, then code as 99.

99 Unknown if cancer-directed surgery performed; death certificate ONLY

Mapping of Site-Specific Surgery Codes to 1998-2002 Codes for Pathology

Type of surgery	Year of Diagnosis		
	Pre-1998	**1998-2002**	2003 and later
No cancer-directed surgery or non-excisional biopsy	00, 07	**00**	00
Incisional, needle or aspiration biopsy of other than primary site	01		
Incisional, needles, or aspiration biopsy of primary site	02		
Exploratory ONLY (no biopsy)	03		
Bypass surgery, -ostomy ONLY (no biopsy)	04		
Exploratory ONLY and 01 or 02	05		
Bypass surgery, -ostomy ONLY and 01 or 02	06		
Surgery of regional and/or distant site(s)/node(s) ONLY	80, 88*		
Local tumor destruction, NOS	-----	-----	19
Partial mastectomy NOS	10, 20**	**10**	20
Nipple resection		**11**	21
Lumpectomy or excision biopsy		**12**	22
Re-excision of the biopsy site		**13**	23
Wedge resection		**14**	
Quadrantectomy		**15**	
Segmental mastectomy		**16**	24
Tylectomy		**17**	
Subcutaneous mastectomy	30	**30**	30
Total (simple) mastectomy	40, 48*	**40**	40
WITHOUT removal of uninvolved contralateral breast		**41**	41
Reconstruction, NOS			43
Tissue			44
Implant			45
Combined (Tissue and Implant)			46
WITH removal of uninvolved contralateral breast		**42**	42
Reconstruction, NOS			47
Tissue			48
Implant			49
Combined (Tissue and Implant)			75
Modified radical mastectomy	50, 58*	**50**	50
WITHOUT removal of uninvolved contralateral breast		**51**	51
Reconstruction, NOS			53
Tissue			54
Implant			55
Combined (Tissue and Implant)			56
WITH removal of uninvolved contralateral breast		**52**	52
Reconstruction, NOS			57
Tissue			58
Implant			59
Combined (Tissue and Implant)			63

Mapping of Site-Specific Surgery Codes to 1998-2002 Codes for <u>Pathology</u> (continued)

	Year of Diagnosis		
	Pre-1998[1]	**1998-2002**[2]	2003 and later[3]
Radical mastectomy	60, 68*	**60**	60
WITHOUT removal of uninvolved contralateral breast			61
Reconstruction, NOS			64
Tissue		**61**	65
Implant			66
Combined (Tissue and Implant)			67
WITH removal of uninvolved contralateral breast			62
Reconstruction, NOS			68
Tissue		**62**	69
Implant			73
Combined (Tissue and Implant)			74
Extended radical mastectomy	70, 78*	**70**	70
WITHOUT removal of uninvolved contralateral breast		**71**	71
WITH removal of uninvolved contralateral breast		**72**	72
Mastectomy NOS		**80**	80
Surgery NOS		**90**	90
Mastectomy or Surgery, NOS	90***		
Unknown	09	**99**	99

[1] SEER Program Code Manual, Revised Edition, 1992 (Appendix C, pp. C-190 and C-191)
[2] SEER Program Code Manual, 3rd Edition, 1998 (Appendix C, pp. C-63 and C-64)
[3] SEER Program Coding and Staging Manual 2004 (Appendix C, pp C-485 and C-486)

* Prior to 1998, surgery codes that ended in 8 indicated reconstruction and the first digit indicated the type of surgery. After 2002, reconstruction is indicated by more-detailed surgery codes (43, 47, 53, 57, 64, and 68).

** Prior to 1998, SEER category 10 was Partial/less than total mastectomy *without* dissection of axillary lymph nodes while those *with* axillary lymph nodes were coded as 20. This distinction was eliminated after 1998 since information about axillary lymph nodes is recorded elsewhere.

*** If supplementary information is known to distinguish between mastectomy and surgery, code as either 80 or 90 as appropriate. If supplementary information is not known, code as 90.

SEER Site-Specific Coding Guidelines
BREAST
C500–C509

Primary Site

C500 **Nipple** (areolar)
Paget disease without underlying tumor

C501 **Central** portion of **breast** (**subareolar**) area extending 1 cm around areolar complex
Retroareolar
Infraareolar
Next to areola, NOS
Behind, beneath, under, underneath, next to, above, cephalad to, or below nipple
Paget disease with underlying tumor

C502 **Upper inner quadrant** (UIQ) of breast
Superior medial
Upper medial
Superior inner

C503 **Lower inner quadrant** (LIQ) of breast
Inferior medial
Lower medial
Inferior inner

C504 **Upper outer quadrant** (UOQ) of breast
Superior lateral
Superior outer
Upper lateral

C505 **Lower outer quadrant** (LOQ) of breast
Inferior lateral
Inferior outer
Lower lateral

C506 Axillary tail of breast
Tail of breast, NOS
Tail of Spence

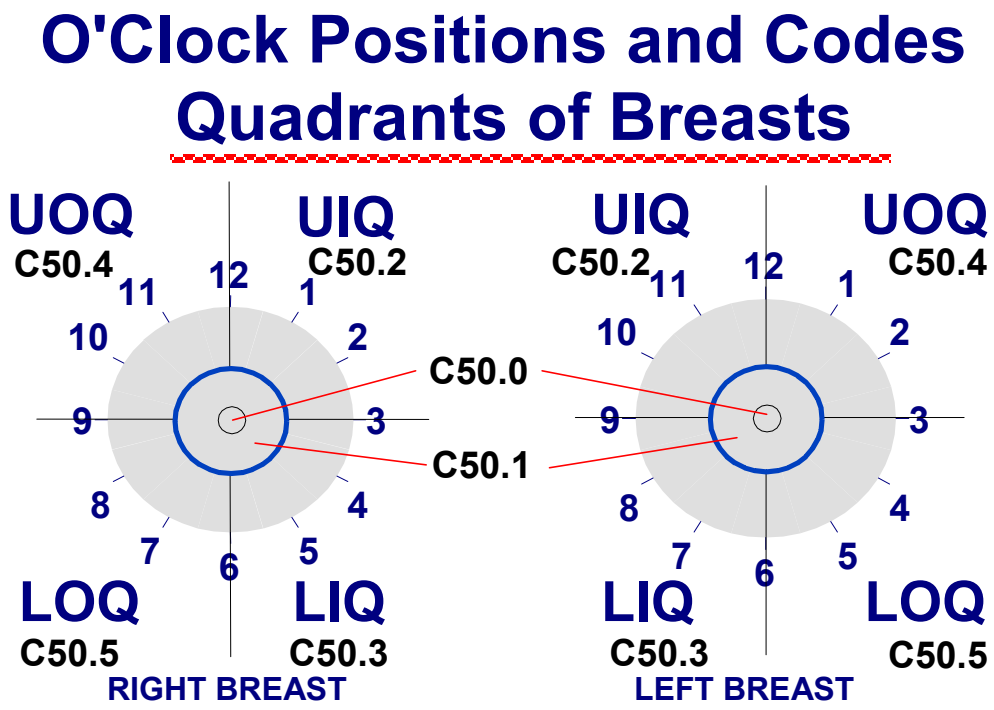
C508 **Overlapping** lesion of breast
Inferior breast, NOS
Inner breast, NOS
Lateral breast, NOS
Lower breast, NOS
Medial breast, NOS
Midline breast NOS
Outer breast NOS
Superior breast, NOS
Upper breast, NOS
3:00, 6:00, 9:00, 12:00 o'clock

C509 Breast, NOS
Entire breast
Multiple tumors in different subsites within breast
Inflammatory without palpable mass
¾ or more of breast involved with tumor

Diffuse (tumor size 998)

Additional Subsite Descriptors

The position of the tumor in the breast may be described as the positions on a clock



Priority Order for Coding Subsites

Use the information from reports in the following priority order to code a subsite when the medical record contains conflicting information:

1 Pathology report
2 Operative report
3 Physical examination
4 Mammogram, ultrasound

If the pathology proves **invasive** tumor in **one subsite** and **insitu tumor** in all **other** involved subsites, code to the subsite involved with invasive tumor

When to Use Subsites 8 and 9

A. Code the primary site to C50**8** when there is a **single tumor** that **overlaps** two or more subsites, and the **subsite** in which the tumor **originated** is **unknown**
B. Code the primary site to C50**8** when there is a **single tumor** located at the **12, 3, 6, or 9 o'clock** position on the breast

Code the primary site to C50**9** when there are **multiple tumors** (two or more) in **at least two quadrants** of the breast

Laterality

Laterality **must** be **coded** for all subsites.

Single Tumor with Complex Histology

If the diagnosis is both **lobular and ductal** (insitu or invasive, or a combination of insitu and invasive) use code 8522

Example 1: Code duct carcinoma and lobular carcinoma insitu to the combination code 8522/3

Example 2: Code LCIS and DCIS to the combination code 8522/2

If the diagnosis is **mixed invasive and insitu**, code the invasive diagnosis

Example 1: Code ductal carcinoma with extensive cribriforming DCIS to the invasive ductal carcinoma (8500/3)

Example 2: Code mucinous carcinoma in a background of ductal carcinoma insitu to the invasive mucinous carcinoma (8480/3)

Example 3: Code infiltrating ductal carcinoma with DCIS, solid, cribriform, and comedo type to the invasive infiltrating ductal carcinoma (8500/3)

Use a **combination code** if the diagnosis is either ductal carcinoma OR lobular carcinoma mixed with another type of carcinoma. Look for the words "and" or "mixed" in the diagnosis.

Code duct carcinoma mixed with another type of carcinoma (excluding lobular) to 8523/_

Example 1: Code duct carcinoma **and** tubular carcinoma to 8523/3

Example 2: Code DCIS **and** cribriform carcinoma insitu to 8523/2

Code lobular carcinoma mixed with another type of carcinoma (excluding ductal) to 8524_

Example 1: Code lobular **and** adenoid cystic carcinoma to 8524/3

Example 2: Code tubular carcinoma **and** lobular carcinoma as 8524/3

Code the **infiltrating ductal subtype** even if the code is numerically lower than infiltrating ductal (8500/_) when the following terms are used
Type: Duct carcinoma, _____ type
Predominantly: Duct carcinoma, predominantly _____
With features of: Duct carcinoma with features of _____
Subtype: Infiltrating ductal, _____ subtype
Variant: Duct carcinoma, _____ variant
Other terms that indicate the majority of tumor

Example 1: Duct carcinoma, tubular type. Code the histology as tubular carcinoma, 8211/3

Example 2: Duct carcinoma with apocrine features. Code the histology as aprocrine carcinoma 8401/3

If the diagnosis includes **more than one subtype**, use a combination code

Example 1: Duct carcinoma, cribriform and comedo types. Code the histology to 8523/3

Example 2: Duct carcinoma insitu showing both solid and cribriforming subtypes. Code the histology as 8523/2

Separate Tumors of Different Histologies in One Breast
If different histologies occur in **separate tumors in the same breast**, use the multiple primary rules to determine if there is one or more primaries. If, according to the rules, there are two primaries, abstract and stage separately. If, according to the rules, there is one primary, abstract and stage as one primary. Use a combination code for combinations of duct and lobular or combinations of duct and Paget disease.

Example 1: Lobular carcinoma insitu in the upper inner quadrant of the right breast and duct carcinoma in the lower inner quadrant of the right breast. Code the histology as 8522/3

Example 2: Paget disease of nipple and intraductal carcinoma, upper outer quadrant. Code the histology as 8543/3

Grade

Priority Rules for Grading Breast Cancer

Code the tumor grade using the following priority order:

Bloom-Richardson (Nottingham) scores 3-9 converted to grade (see conversion table below)
Bloom Richardson grade (low, intermediate, high)
Nuclear grade only
Terminology
Differentiation (well differentiated, moderately differentiated, etc)
Histologic grade
Grade i, grade ii, grade iii, grade iv

Bloom-Richardson (BR)

BR may **also** be **called**: modified Bloom-Richardson, Scarff-Bloom-Richardson, SBR grading, BR grading, Elston-Ellis modification of Bloom Richardson score, the Nottingham modification of Bloom Richardson score, Nottingham-Tenovus, or Nottingham grade

BR may be expressed in **scores** (range 3-9)
The score is based on three morphologic features of "invasive no-special-type" breast cancers (degree of tubule formation/histologic grade, mitotic activity, nuclear pleomorphism of tumor cells)
Use the following table to convert the score into SEER code

BR may be expressed as a **grade** (low, intermediate, high)
BR grade is derived from the BR score
For cases diagnosed 1996 and later, use the following table to convert the BR grade into SEER code (Note that the conversion of low, intermediate, and high is different from the conversion used for all other tumors)

Convert BR Score to SEER Code

Use the table below to convert BR **score** to SEER code.

BR Combined Score	Differentiation	Grade	SEER Code
3, 4, 5	Well differentiated	I	1
6, 7	Moderately differentiated	II	2
8, 9	Poorly differentiated	III	3

Convert BR Grade to SEER Code

Use the table below to convert BR **grade** to SEER code.

BR Grade	Differentiation	Grade	SEER Code
BR low grade	Well differentiated	I	1
BR intermediate grade	Moderately differentiated	II	2
BR high grade	Poorly differentiated	III	3

Three-Grade System (Nuclear Grade)

There are several sites for which a three-grade system is used. The patterns of cell growth are measured on a scale of 1, 2, and 3 (also referred to as low, medium, and high grade). This system measures the proportion of cancer cells that are growing and making new cells and how closely they resemble the cells of the host tissue. Thus, it is similar to a four-grade system, but simply divides the spectrum into three rather than four categories (see comparison table above). The expected outcome is more favorable for lower grades.

If a grade is written as 2/3 that means this is a grade 2 of a three-grade system. Do not simply code the numerator. Use the table below to convert the grade to SEER codes.

Term	Grade	SEER Code
1/3, 1/2	Low grade	2
2/3	Intermediate grade	3
3/3, 2/2	High grade	4

Laterality

Laterality must be coded for all subsites.

Tumor Markers

Estrogen and progesterone receptors (ERA and PRA) are positive in most breast cancers. A positive ERA and PRA indicates a better prognosis and response to estrogen therapy.

Size of Primary Tumor

General Coding Guidelines

If **multiple masses** are present, code the diameter of the **largest invasive mass.** Ignore the insitu even if it is larger than the invasive.
If the patient had **neoadjuvant** treatment, code the **largest** tumor size **documented**, clinical or pathologic.

Tumors That Are Purely Invasive or Purely Insitu

For purely invasive or purely insitu tumors, record the size of tumor based on the following priority of reports.

Priority in which to use Reports to Code Tumor Size

1. **Pathology** report
2. **Operative** report
3. Physical examination
4. Imaging (**mammography**)
5. Imaging (**ultrasound**)

Single Tumors with Both Invasive and Insitu Components

Record the **size** of the **invasive** component, if given.
If **both** an ***insitu*** and an **invasive** component are present, and the invasive component is measured, record the size of the invasive component even if it is smaller.

Example: Tumor is 37 mm mixed insitu and invasive adenocarcinoma. Pathology documents that 14 mm is invasive. *Record tumor size as 014.*

General Staging Guidelines

DO NOT USE the following to determine tumor extension:

A. Dimpling of the skin, tethering, nipple retraction, nipple involvement or skin changes other than those listed in CS extension code 51 (See also CS Extension, Note 1)
B. **Micro**scopic satellite skin nodules
   (**macro**scopic or **gross** nodules in skin of primary breast **are** used in staging)
C. Microscopically proven invasion of lymphatic vessels within the breast

Collaborative Staging Codes
Breast
C50.0-C50.6, C50.8-C50.9

C50.0 Nipple
C50.1 Central portion of breast
C50.2 Upper-inner quadrant of breast
C50.3 Lower-inner quadrant of breast
C50.4 Upper-outer quadrant of breast
C50.5 Lower-outer quadrant of breast
C50.6 Axillary Tail of breast
C50.8 Overlapping lesion of breast
C50.9 Breast, NOS
Note: Laterality must be coded for this site.

CS Tumor Size CS Extension CS TS/Ext-Eval CS Lymph Nodes CS Reg Nodes Eval Reg LN Pos Reg LN Exam CS Mets at DX CS Mets Eval	**CS Site-Specific Factor 1 -** Estrogen Receptor Assay (ERA) **CS Site-Specific Factor 2 -** Progesterone Receptor Assay (PRA) **CS Site-Specific Factor 3 -** Number of Positive Ipsilateral Axillary Lymph Nodes **CS Site-Specific Factor 4 -** Immunohistochemistry (IHC) of Regional Lymph Nodes **CS Site-Specific Factor 5 -** Molecular Studies of Regional Lymph Nodes **CS Site-Specific Factor 6 -** Size of Tumor--Invasive Component	The following tables are available at the collaborative staging website: Histology Exclusion Table AJCC Stage Extension Size Table Extension Behavior Table Lymph Nodes Positive Axillary Nodes Table IHC MOL Table

Breast
CS Tumor Size

Note 1: For tumor size, some breast cancers cannot be sized pathologically.
Note 2: When coding pathologic size, code the measurement of the invasive component. For example, if there is a large in situ component (e.g., 4 cm) and a small invasive component see Site-Specific Factor 6 to code more information about the reported tumor size. If the size of invasive component is not given, code the size of the entire tumor and record what it represents in Site-Specific Factor 6.
Note 3: Microinvasion is the extension of cancer cells beyond the basement membrane into the adjacent tissues with no focus more than 0.1 cm in greatest dimension. When there are multiple foci of microinvasion, the size of only the largest focus is used to classify the microinvasion. (Do not use the sum of all the individual foci.)

Code	Description
000	No mass/tumor found
001-988	001 - 988 millimeters (code exact size in millimeters)
989	989 millimeters or larger
990	Microinvasion; microscopic focus or foci only, no size given; described as less than 1 mm
991	Described as less than 1 cm
992	Described as less than 2 cm
993	Described as less than 3 cm
994	Described as less than 4 cm

995	Described as less than 5 cm
996	Mammographic/xerographic diagnosis only, no size given; clinically not palpable
997	Paget's Disease of nipple with no demonstrable tumor
998	Diffuse
999	Unknown; size not stated Not documented in patient record

Breast
CS Extension

Note 1: Changes such as dimpling of the skin, tethering, and nipple retraction are caused by tension on Cooper's ligament(s), not by actual skin involvement. They do not alter the classification.
Note 2: Consider adherence, attachment, fixation, induration, and thickening as clinical evidence of extension to skin or subcutaneous tissue, code '20'.
Note 3: Consider "fixation, NOS" as involvement of pectoralis muscle, code '30'.
Note 4: If extension code is 00, then Behavior code must be 2; if extension code is 05 or 07, then behavior code may be 2 or 3; and, if extension code is 10, then behavior code must be 3.
Note 5: Inflammatory Carcinoma. AJCC includes the following text in the 6th edition Staging Manual (p. 225-6), "Inflammatory carcinoma is a clinicopathologic entity characterized by diffuse erythema and edema (peau d'orange) of the breast, often without an underlying palpable mass. These clinical findings should involve the majority of the skin of the breast. Classically, the skin changes arise quickly in the affected breast. Thus the term of inflammatory carcinoma should not be applied to a patient with neglected locally advanced cancer of the breast presenting late in the course of her disease. On imaging, there may be a detectable mass and characteristic thickening of the skin over the breast. This clinical presentation is due to tumor emboli within dermal lymphatics, which may or may not be apparent on skin biopsy. The tumor of inflammatory carcinoma is classified T4d. It is important to remember that inflammatory carcinoma is primarily a clinical diagnosis. Involvement of the dermal lymphatics alone does not indicate inflammatory carcinoma in the absence of clinical findings. In addition to the clinical picture, however, a biopsy is still necessary to demonstrate cancer either within the dermal lymphatics or in the breast parenchyma itself."
Note 6: For Collaborative Staging, the abstractor should record a stated diagnosis of inflammatory carcinoma, and also record any clinical statement of the character and extent of skin involvement in the text area. Code 72 should be used if there is a stated diagnosis of inflammatory carcinoma and a clinical description of the skin involvement in more than 50% of the breast. All other cases with a stated diagnosis of inflammatory carcinoma but no such clinical description should be coded 71. A clinical description of inflammation, erythema, edema, peau d'orange, etc. without a stated diagnosis of inflammatory carcinoma should be coded 51 or 52, depending on described extent of the condition.

Code	Description	TNM	SS77	SS2000
00	In situ: noninfiltrating; intraepithelial Intraductal WITHOUT infiltration Lobular neoplasia	Tis	IS	IS
05	Paget Disease of nipple (WITHOUT underlying tumor)	Tis	**	**
07	Paget Disease of nipple (WITHOUT underlying invasive carcinoma pathologically)	Tis	**	**
10	Confined to breast tissue and fat including nipple and/or areola Localized, NOS	*	L	L

20	Invasion of subcutaneous tissue Local infiltration of dermal lymphatics adjacent to primary tumor involving skin by direct extension Skin infiltration of primary breast including skin of nipple and/or areola	*	RE	RE
30	Attached or fixation to pectoral muscle(s) or underlying tissue Deep fixation Invasion of (or fixation to) pectoral fascia or muscle	*	RE	RE
40	Invasion of (or fixation to): Chest wall Intercostal or serratus anterior muscle(s) Rib(s)	T4a	RE	RE
51	Extensive skin involvement, including: Satellite nodule(s) in skin of primary breast Ulceration of skin of breast Any of the following conditions described as involving not more than 50% of the breast, or amount or percent of involvement not stated: Edema of skin En cuirasse Erythema Inflammation of skin Peau d'orange ("pigskin")	T4b	RE	RE
52	Any of the following conditions described as involving more than 50% of the breast WITHOUT a stated diagnosis of inflammatory carcinoma: Edema of skin En cuirasse Erythema Inflammation of skin Peau d'orange ("pigskin")	T4b	RE	RE
61	(40) + (51)	T4c	RE	RE
62	(40) + (52)	T4b	RE	RE
71	Diagnosis of inflammatory carcinoma WITHOUT a clinical description of inflammation, erythema, edema, peau d'orange,etc., of more than 50% of the breast, WITH or WITHOUT dermal lymphatic infiltration Inflammatory carcinoma, NOS	T4b	RE	RE
72	Diagnosis of inflammatory carcinoma WITH a clinical description of inflammation, erythema, edema, peau d'orange, etc. of LESS THAN OR EQUAL TO 50% of the breast, WITH or WITHOUT dermal lymphatic infiltration	T4b	RE	RE
73	Diagnosis of inflammatory carcinoma WITH a clinical description of inflammation, erythema, edema, peau d'orange, etc., of more than 50% of the breast, WITH or WITHOUT dermal lymphatic infiltration	T4d	RE	RE
95	No evidence of primary tumor	T0	U	U

99	Unknown extension Primary tumor cannot be assessed Not documented in patient record	TX	U	U

* For Extension codes 10, 20, and 30 ONLY, the T category is assigned based on value of CS Tumor Size as shown in the Extension Size Table for this site.
** For codes 05 and 07 ONLY, summary stage is assigned based on the value of Behavior Code ICD-0-3 as shown in the Extension Behavior Table for this site.

Breast
CS TS/Ext-Eval
SEE STANDARD TABLE

Breast
CS Lymph Nodes
Note 1: Code only regional nodes and nodes, NOS, in this field. Distant nodes are coded in the field Mets at DX.
Note 2: If the pathology report indicates that nodes are positive but size of the metastases is not stated, assume the metastases are greater than 0.2 mm and code the lymph nodes as positive in this field. Use code 60 in the absence of other information about regional nodes.
Note 3: If no lymph nodes were removed surgically, then use only the following codes for clinical evaluation of axillary nodes: 00 - Clinically negative 50 - Fixed/matted nodes, 60 - Clinically positive axillary nodes 99 - Unknown/not stated.
Note 4: If pre-surgical therapy was given and there is a clinical evaluation (positive or negative) of lymph nodes, then use only the following codes for clinical evaluation of axillary nodes: 00 - Clinically negative 50 - Fixed/matted nodes 60 - Clinically positive axillary nodes AND Code a '5' in the nodes evaluation field. If there is no clinical evaluation of nodes, use the information from the pathologic evaluation and code a '6' in the nodes evaluation field.
Note 5: Isolated tumor cells (ITC) are defined as single tumor cells or small clusters not greater than 0.2 mm, usually detected only by immunohistochemical (IHC) or molecular methods but which may be verified on H and E stains. ITCs do not usually show evidence of malignant activity (e.g., proliferation or stromal reaction). Lymph nodes with ITCs only are not considered positive lymph nodes.
Note 6: Codes 13-50 are used for positive axillary nodes without internal mammary nodes.

Code	Description	TNM	SS77	SS2000
00	None; no regional lymph node involvement, including ITCs detected by immunohistochemistry or molecular methods ONLY. (See Note 5 and Site-specific Factors 4 and 5.)	*	NONE	NONE
05	Regional lymph node(s) with (ITCs) detected on routine H and E stains. (See Note 5)	N0(i+)	NONE	NONE
13	Axillary lymph node(s), ipsilateral, micrometastasis ONLY detected by immunohistochemical (IHC) means ONLY (at least one micrometastasis greater than 0.2 mm and all micrometastases less than or equal to 2 mm)	N1mi	RN	RN
15	Axillary lymph node(s), ipsilateral, micrometastasis ONLY detected or verified on H&E (at least one micrometastasis greater than 0.2 mm and all micrometastases less than or equal to 2 mm) Micrometastasis, NOS	N1mi	RN	RN
25	Movable axillary lymph node(s), ipsilateral, positive with more than micrometastasis (i.e., at least one metastasis greater than 2 mm)	**	RN	RN
26	Stated as N1, NOS	**	RN	RN
28	Stated as N2, NOS	**	RN	RN

50	Fixed/matted ipsilateral axillary nodes, positive with more than micrometastasis (i.e., at least one metastasis greater than 2 mm) Fixed/matted ipsilateral axillary nodes, NOS	**	RN	RN
60	Axillary/regional lymph node(s), NOS Lymph nodes NOS	**	RN	RN
71	Internal mammary node(s), ipsilateral, positive on sentinel nodes but not clinically apparent (no positive imaging or clinical exam) WITHOUT axillary lymph node(s), ipsilateral	**	RN	RN
72	Internal mammary node(s), ipsilateral, positive on sentinel nodes but not clinically apparent (no positive imaging or clinical exam) WITH axillary lymph node(s), ipsilateral	**	RN	RN
73	Internal mammary node(s), ipsilateral, positive on sentinel nodes but not clinically apparent (no positive imaging or clinical exam) UNKNOWN if positive axillary lymph node(s), ipsilateral	**	RN	RN
74	Internal mammary node(s), ipsilateral, clinically apparent (on imaging or clinical exam) WITHOUT axillary lymph node(s), ipsilateral	N2b	RN	RN
75	Infraclavicular lymph node(s) (subclavicular)	N3a	D	RN
76	Internal mammary node(s), ipsilateral, clinically apparent (on imaging or clinical exam) WITH axillary lymph node(s), ipsilateral, codes 15 to 60 WITH or WITHOUT infraclavicular lymph node(s)	N3b	RN	RN
77	Internal mammary node(s), ipsilateral, clinically apparent (on imaging or clinical exam) UNKNOWN if positive axillary lymph node(s), ipsilateral	N2b	RN	RN
78	(75) + (77)	N3a	D	RN
79	Stated as N3, NOS	N3NOS	RN	RN
80	Supraclavicular node(s)	N3c	D	D
99	Unknown; not stated Regional lymph node(s) cannot be assessed Not documented in patient record	NX	U	U

* For code 00 ONLY, the N category is assigned based on the coding of Site-Specific Factors 4 and 5 using the IHC MOL Table for this site.
**For codes 25, 26, 28, 50, 60, 71, 72, and 73 ONLY, the N category is assigned based on the value of Site-Specific Factor 3, Number of Positive Ipsilateral Axillary LymphNodes. See Lymph Nodes Positive Axillary Nodes Table.

Breast
CS Reg Nodes Eval
SEE STANDARD TABLE

Breast
Reg LN Pos

Note 1: Record this field even if there has been preoperative treatment.
Note 2: Lymph nodes with only isolated tumor cells (ITCs) are NOT counted as positive lymph nodes. Only lymph nodes with metastases greater than 0.2mm (micrometastases or larger) should be counted as positive. If the pathology report indicates that nodes are positive but size of the metastases is not stated, assume the metastastases are > 0.2mm and code the lymph nodes as positive in this field.
Note 3: Record all positive regional lymph nodes in this field. Record the number of positive regional axillary nodes separately in the appropriate Site-Specific Factor field.

Code	Description
00	All nodes examined negative.
01-89	1 - 89 nodes positive (code exact number of nodes positive)
90	90 or more nodes positive
95	Positive aspiration of lymph node(s)
97	Positive nodes - number unspecified
98	No nodes examined
99	Unknown if nodes are positive; not applicable Not documented in patient record

Breast
Reg LN Exam

SEE STANDARD TABLE

Breast
CS Mets at DX

Note: Supraclavicular (transverse cervical) is moved to CS Lymph Nodes.

Code	Description	TNM	SS77	SS2000
00	No; none	M0	NONE	NONE
10	Distant lymph node(s) Cervical, NOS Contralateral/bilateral axillary and/or internal mammary Other than above Distant lymph node(s), NOS	M1	D	D
40	Distant metastases except distant lymph node(s) (code 10) Distant metastasis, NOS Carcinomatosis	M1	D	D
42	Further contiguous extension: Skin over: Axilla Contralateral (opposite) breast Sternum Upper abdomen	M1	D	D

44	Metastasis: Adrenal (suprarenal) gland Bone, other than adjacent rib Contralateral (opposite) breast - if stated as metastatic Lung Ovary Satellite nodule(s) in skin other than primary breast	M1	D	D
50	(10) + any of [(40) to (44)] Distant lymph node(s) plus other distant metastases	M1	D	D
99	Unknown if distant metastasis Distant metastasis cannot be assessed Not documented in patient record	MX	U	U

Breast
CS Mets Eval
SEE STANDARD TABLE

Breast
CS Site-Specific Factor 1 Estrogen Receptor Assay (ERA)

Code	Description
000	Test not done (test was not ordered and was not performed)
010	Positive/elevated
020	Negative/normal; within normal limits
030	Borderline; undetermined whether positive or negative
080	Ordered, but results not in chart
999	Unknown or no information Not documented in patient record

Breast
CS Site-Specific Factor 2 Progesterone Receptor Assay (PRA)

Code	Description
000	Test not done (test was not ordered and was not performed
010	Positive/elevated
020	Negative/normal; within normal limits
030	Borderline, undetermined whether positive or negative
080	Ordered, but results not in chart
999	Unknown or no information Not documented in patient record

Breast
CS Site-Specific Factor 3 Number of Positive Ipsilateral Axillary Lymph Nodes

Note 1: Record this field even if there has been preoperative treatment.
Note 2: Lymph nodes with only isolated tumor cells (ITCs) are NOT counted as positive lymph nodes. Only lymph nodes with metastases greater than 0.2 mm (micrometastases or larger) should be counted as positive. If the pathology report indicates that nodes are positive but size of the metastases is not stated, assume the metastases are greater than 0.2 mm and code the lymph nodes as positive in this field.

Code	Description
000	All ipsilateral axillary nodes examined negative
001-089	1 - 89 nodes positive (code exact number of nodes positive)
090	90 or more nodes positive
095	Positive aspiration of lymph node(s)
097	Positive nodes - number unspecified
098	No axillary nodes examined
099	Unknown if axillary nodes are positive; not applicable Not documented in patient record

Breast
CS Site-Specific Factor 4 Immunohistochemistry (IHC) of Regional Lymph Nodes

Note 1: Use codes 000-009 only to report results of IHC on otherwise histologically negative lymph nodes on routine H and E stains., i.e., only when CS Lymph Nodes is coded 00. Otherwise code 888 in this field.
Note 2: Isolated tumor cells (ITC) are defined as single tumor cells or small clusters 0.2 mm, usually detected only by immunohistochemical (IHC) or molecular methods (RT-PCR: Reverse Transcriptase Polymerase Chain Reaction) but which may be verified on H and E stains. ITCs do not usually show evidence of malignant activity (e.g., proliferation or stromal reaction.)
Note 3: If it is unstated whether or not IHC tests were done, assume they were not done.

Code	Description
000	Regional lymph nodes negative on H and E, no IHC studies done or unknown if IHC studies done Nodes clinically negative, not examined pathologically
001	Regional lymph nodes negative on H and E, IHC studies done, negative for tumor
002	Regional lymph nodes negative on H and E, IHC studies done, positive for ITCs (tumor cell clusters not greater than 0.2mm)
009	Regional lymph nodes negative on H and E, positive for tumor detected by IHC, size of tumor cell clusters or metastases not stated
888	Not applicable CS Lymph Nodes not coded 00 or 05

Breast
CS Site-Specific Factor 5 Molecular Studies of Regional Lymph Nodes

Note 1: Use codes 000-002 only to report results of molecular studies on otherwise histologically negative lymph nodes on routine H and E stains., i.e., only when CS Lymph Nodes is coded 00. Otherwise code 888 in this field.
Note 2: Isolated tumor cells (ITC) are defined as single tumor cells or small clusters less than or equal to 0.2 mm, usually detected only by immunohistochemical (IHC) or molecular methods (RT-PCR: Reverse Transcriptase

Polymerase Chain Reaction) but which may be verified on H and E stains. ITCs do not usually show evidence of malignant activity (e.g., proliferation or stromal reaction.)

Note 3: If it is not stated whether molecular tests were done, assume they were not done.

Code	Description
000	Regional lymph nodes negative on H and E, no RT-PCR molecular studies done or unknown if RT-PCR studies done Nodes clinically negative, not examined pathologically
001	Regional lymph nodes negative on H and E, RT-PCR molecular studies done, negative for tumor
002	Regional lymph nodes negative on H and E, RT-PCR molecular studies done, positive for tumor
888	Not applicable CS Lymph Nodes not coded 00

Breast

CS Site-Specific Factor 6 Size of Tumor--Invasive Component

Note 1: Record the code that indicates how the tumor size coded in CS Tumor Size was determined.

Note 2: For this field, "mixed" indicates a tumor with both invasive and in situ components. Such a "mixed" tumor may be a single histology such as mixed infiltrating ductal and ductal carcinoma in situ or combined histology such as mixed infiltrating ductal and lobular carcinoma in situ. "Pure" indicates a tumor that contains only invasive or only in situ tumor.

Note 3: This information is collected for analytic purposes and does not affect the stage grouping algorithm. Different codes in this field may explain differences in outcome for patients in the same T category or stage group. Example: Patient 1 has a "mixed" (see Note 2) tumor measuring 2.5 cm with extensive areas of in situ tumor, and the size of the invasive component is not stated. This would be coded 025 in CS Tumor Size, and would be classified as T2. It would be coded 040 in Site-Specific Factor 6. Patient 2 has a purely invasive tumor measuring 2.5 cm. This would also be coded 025 in CS Tumor Size and would also be classified as T2. However, it would be coded 000 in Site-Specific Factor 6. Patient 1's tumor would probably have a better survival than Patient 2's tumor, since it would more likely be a T1 lesion if the true dimensions of the invasive component were known.

Code	Description
000	Entire tumor reported as invasive (no in situ component reported)
010	Entire tumor reported as in situ (no invasive component reported)
020	Invasive and in situ components present, size of invasive component stated and coded in CS Tumor Size
030	Invasive and in situ components present, size of entire tumor coded in CS Tumor Size because size of invasive component not stated AND in situ described as minimal (less than 25%)
040	Invasive and in situ components present, size of entire tumor coded in CS Tumor Size because size of invasive component not stated AND in situ described as extensive (25% or more)
050	Invasive and in situ components present, size of entire tumor coded in CS Tumor Size because size of invasive component not stated AND proportions of in situ and invasive not known
060	Invasive and in situ components present, unknown size of tumor (CS Tumor Size coded 999)
888	Unknown if invasive and in situ components present, unknown if tumor size represents mixed tumor or a "pure" tumor. (See Note 2.)

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Site-Specific Surgery Codes
Breast
C500–C509
(Except for M-9750, 9760-9764, 9800-9820, 9826, 9831-9920, 9931-9964, 9980-9989)

Codes

00 None; **no surgery** of primary site; **autopsy** ONLY

19 Local tumor destruction, NOS

No specimen was sent to **pathology** for surgical events coded 19 (principally for cases diagnosed prior to January 1, 2003)

20 Partial mastectomy, NOS; less than total mastectomy, NOS
- 21 Partial mastectomy WITH nipple resection
- 22 Lumpectomy or excisional biopsy
- 23 Reexcision of the biopsy site for gross or microscopic residual disease
- 24 Segmental mastectomy (including wedge resection, quadrantectomy, tylectomy)

Procedures coded **20–24** remove **the gross primary tumor** and some of the breast tissue (breast-conserving or preserving). There may be microscopic residual tumor.

30 Subcutaneous mastectomy

A subcutaneous mastectomy is the removal of breast tissue without the nipple and areolar complex or overlying skin

[***SEER Note:*** This procedure is rarely used to treat malignancies]

40 **Total** (simple) **mastectomy**, NOS
- 41 WITHOUT removal of uninvolved contralateral breast
- 43 Reconstruction, NOS
- 44 Tissue
- 45 Implant
- 46 Combined (Tissue and implant)
- 42 WITH removal of uninvolved contralateral breast
- 47 Reconstruction, NOS
- 48 Tissue
- 49 Implant

75 Combined (Tissue and implant)

[***SEER Notes:*** If axillary lymph nodes are present in the specimen, code the Surgery of Primary Site field to 51. If there are no axillary lymph nodes present in the specimen, code the Surgery of Primary Site field to 41. Placement of a tissue expander at the time of original surgery means that reconstruction is planned as part of the first course of treatment.]

A total (simple) mastectomy removes all breast tissue, the nipple, and areolar complex. An axillary dissection is not done.

For **single** primaries only, code removal of involved contralateral breast under the data item **Surgical Procedure/Other Site** (NAACCR Item # 1294)
If **contralateral breast** reveals a **second primary**, each breast is abstracted separately. The surgical procedure is coded 41 for the first primary. The surgical code for the contralateral breast is coded to the procedure performed on that site.

50 Modified radical mastectomy
- 51 WITHOUT removal of uninvolved contralateral breast
- 53 Reconstruction, NOS
- 54 Tissue
- 55 Implant
- 56 Combined (Tissue and Implant)
- 52 WITH removal of uninvolved contralateral breast
- 57 Reconstruction, NOS
- 58 Tissue
- 59 Implant

63 Combined (Tissue and Implant)

Removal of all breast tissue, the nipple, the areolar complex, and variable amounts of breast skin in continuity with the axilla. The specimen may or may not include a portion of the pectoralis major muscle. If contralateral breast reveals a second primary, it is abstracted separately. The surgical procedure is coded 51 for the first primary. The surgical code for the contralateral breast is coded to the procedure performed on that site.

For single primaries only, code removal of involved contralateral breast under the data item Surgical Procedure/Other Site (NAACCR Item # 1294)

[***SEER Notes:*** In continuity with or "en bloc" means that all of the tissues were removed during the same procedure, but not necessarily in a single specimen. "Tissue" for reconstruction is defined as human tissue such as muscle (latissimus dorsi or rectus abdominis) or skin in contrast to artificial prostheses (implants). Placement of a tissue expander at the time of original surgery indicates that reconstruction is planned as part of the first course of treatment. Assign code 51 or 52 if a patient has an excisional biopsy and axillary dissection followed by a simple mastectomy during the first course of therapy.]

60 **Radical** mastectomy, NOS
- 61 WITHOUT removal of uninvolved contralateral breast
- 64 Reconstruction, NOS
- 65 Tissue
- 66 Implant
- 67 Combined (Tissue and Implant)
- 62 WITH removal of uninvolved contralateral breast
- 68 Reconstruction, NOS
- 69 Tissue

73 Implant

74 Combined (Tissue and Implant)

[***SEER Notes:*** Removal of breast tissue, nipple, areolar complex, variable amount of skin, pectoralis minor, pectoralis major. Includes en bloc axillary dissection. Placement of a tissue expander at the time of original surgery indicates that reconstruction is planned as part of the first course of treatment.]

70 Extended radical mastectomy
- 71 WITHOUT removal of uninvolved contralateral breast
- 72 WITH removal of uninvolved contralateral breast

[***SEER Note:*** Removal of breast tissue, nipple, areolar complex, variable amount of skin, pectoralis minor, pectoralis major. Includes removal of internal mammary nodes and en bloc axillary dissection.]

80 Mastectomy, NOS

90 Surgery, NOS

99 **Unknown** if surgery performed; **death certificate** ONLY

Comparison of Codes for TNM Staging System for Breast Cancer

Primary Tumor (T) [1] Definition		TNM T Pathologic and Clinical [2] (NAACCR # 880 & 940) (through 2003)	Derived AJCC T [3] (NAACCR # 2940) (2004+)	Comparative Staging Guide Recode Program [4] (Historical codes)
T0	*	0	00	70
T0a				71
T0b				72
TXa				81
TXb				82
TXc				83
TXd				84
Ta		A	01	01
Tis	*	IS	05	00
Tis (DCIS)	+			02
Tis (LCIS)	+			03
Tis (Paget)	+			04
T1	*	1	10	10
T1mic	*	1M	11	14
T1 NOS			19	
T1a	*	1A	12	11
T1a1		A1	13	16
T1a2		A2	14	17
T1x				19
T1b	*	1B	15	12
T1b1		B1	16	
T1b2		B2	17	
T1c	*	1C	18	13
T2	*	2	20	20
T2 NOS			29	
T2a		2A	21	21
T2b		2B	22	22
T2c		2C	23	23
T2x				29
T3	*	3	30	30
T3 NOS			39	
T3a		3A	31	31
T3b		3B	32	32
T3c		3C	33	33
T3x				39
T4	*	4	40	40
T4 NOS			49	
T4a	*	4A	41	41
T4b	*	4B	42	42
T4c	*	4C	43	43
T4d	*	4D	44	44
T4x				49
TX (unknown)	*	X	99	99
Not applicable		88	88	
Not recorded		(blank)		

Sources:

[1] AJCC Cancer Staging Manual. American Joint Committee on Cancer, 6th edition, 2002

[2] Facility Oncology Registry Data Standards (FORDS) Manual, Commission on Cancer (COC), Revised for 2004

[3] Standards for Cancer Registries, North American Association of Central Cancer Registries (NAACCR), Vol II, 10th ed, Vers 11, 2004

[4] SEER Program: Comparative Staging Guide for Cancer, Version 1.1, June 1993

***** Appears in AJCC Cancer Staging Manual, 6th edition as a breast cancer (Chapt 25)

+ New breast cancer code in AJCC Cancer Staging Manual, 6th edition (Chpt 25)

Note: For full descriptions of codes, see Revision of the AJCC Staging System for Breast Cancer, Journal of Clinical Oncology, Vol 20, No 1, Sept. 2002, pp. 3628-3636 or AJCC 6th edition, Chpt 25

Comparison of Codes for TNM Staging System for Breast Cancer

Regional lymph nodes (N) [1] Definition		TNM N Pathologic and Clinical [2] (NAACCR # 890 & 950) (through 2003)	Derived AJCC N [3] (NAACCR # 2960) (2004+)	Comparative Staging Guide Recode Program [4] (Historical codes)
N0	*	0	00	00
N0 NOS			09	
N0(i-)		0 (NAACCR #890 only)	01	
N0(i+)		0 (NAACCR #890 only)	02	
N0(mol-)		0 (NAACCR #890 only)	03	
N0(mol+)		0 (NAACCR #890 only)	04	
N1	*	1	10	10
N1 NOS			19	
N1a		1A	11	11
N1b		1B	12	12
N1c		1C (NAACCR #890 only)	13	
N1mi		1M (NAACCR #890 only)	18	
N1x				19
N2	*	2	20	20
N2 NOS			29	
N2a	*	2A	21	21
N2b	*	2B	22	22
N2c		2C	23	23
N3	*	3	30	30
N3 NOS			39	
N3a	+	3A	31	31
N3b	+	3B	32	32
N3c	+	3C	33	33
Nxu				70
NXr				80
NX (unknown)	*	X	99	99
Not applicable		88	88	
Not recorded		(blank)		

Distant metastasis (M) [1] Definition		TNM M Pathologic and Clinical [2] (NAACCR # 900 & 960) (through 2003)	Derived AJCC M [3] (NAACCR # 2980) (2004+)	Comparative Staging Guide Recode Program [4] (Historical codes)
M0	*	0	00	00
M1	*	1	10	10
M1a		1A	11	11
M1b		1B	12	12
M1c		1C	13	
M1 NOS			19	
MX (unknown)	*	X	99	99
Not applicable		88	88	88
Not recorded		(blank)		

Sources:

[1] AJCC Cancer Staging Manual. American Joint Committee on Cancer, 6th edition, 2002

[2] Facility Oncology Registry Data Standards (FORDS) Manual, Commission on Cancer (COC), Revised for 2004

[3] Standards for Cancer Registries, North American Association of Central Cancer Registries (NAACCR), Vol II, 10th ed, Vers 11, 2004

[4] SEER Program: Comparative Staging Guide for Cancer, Version 1.1, June 1993

***** Appears in AJCC Cancer Staging Manual, 6th edition as a breast cancer (Chapt 25)

+ New breast cancer code in AJCC Cancer Staging Manual, 6th edition (Chpt 25)

Note: For full descriptions of codes, see Revision of the AJCC Staging System for Breast Cancer, Journal of Clinical Oncology, Vol 20, No 1, Sept. 2002, pp. 3628-3636 or AJCC 6th edition, Chpt 25

Comparison of Codes for AJCC Stage Group for Breast Cancer

Stage Grouping [1] Definition		TNM Stage [2] (NAACCR # 910 & 970) (through 2003)	Derived AJCC Stage [3] (NAACCR # 3000) (2004+)	Comparative Staging Guide Recode Program [4] (For SCC use only)
0	*	0	00	00
0A		0A	01	
0is		0S	02	
I	*	1	10	10
I, NOS			11	19
IA		1A	12	11
1A1		A1	13	
1A2		A2	14	
IB		1B	15	12
1B1		B1	16	
1B2		B2	17	
IC		1C	18	13
IS		1S	19	
II		2	30	20
II, NOS			31	29
IIA	*	2A	32	21
IIB	*	2B	33	22
IIC		2C	34	23
III		3	50	30
III, NOS			51	39
IIIA	*	3A	52	31
IIIB	*	3B	53	32
IIIC	+	3C	54	33
IV	*	4	70	40
IV, NOS			71	49
IVA		4A	72	41
IVB		4B	73	42
IVC		4C	74	
Not available		88	88	88
Not applicable				98
Unstaged, Occult		OC (NAACCR #970 only)	90	90
Unknown, error		99	99	99

Sources:

[1] AJCC Cancer Staging Manual. American Joint Committee on Cancer, 6th edition, 2002

[2] Facility Oncology Registry Data Standards (FORDS) Manual, Commission on Cancer (COC), Revised for 2004

[3] Standards for Cancer Registries, North American Association of Central Cancer Registries (NAACCR), Vol II, 10th ed, Vers 11, 2

[4] SEER Program: Comparative Staging Guide for Cancer, Version 1.1, June 1993

* Appears in AJCC Cancer Staging Manual, 6th edition as a breast cancer (Chpt 25)

\+ New breast cancer code in AJCC Cancer Staging Manual, 6th edition (Chpt 25)

Note: For full descriptions of codes, see Revision of the AJCC Staging System for Breast Cancer, Journal of Clinical Oncology, Vol 20, No 1, Sept. 2002, pp. 3628-3636 or AJCC 6th edition, Chpt 25

VIII.9 Procedure type
(bioptype)
These codes should be used when the intent of the procedure was to establish a diagnosis of a breast abnormality REGARDLESS of whether the final diagnosis was benign or malignant. The procedure would NOT have been intended to remove the entire lesion but MAY have removed the lesion (e.g. focal DCIS may have been entirely removed with multiple large core stereotactic biopsies). Below are clarifications of the aspiration, incisional, and needle of PRIMARY SITE codes for this variable

CODE

01 Nipple aspirate or discharge
A clinician may submit a cytologic sample of a nipple discharge or a nipple scraping or an aspirate of a nipple mass. The clinician is usually trying to establish a diagnosis of Paget's Disease, intraductal papilloma, intraductal papillary carcinoma or DCIS in the large nipple ducts under the nipple.

02 Excisional biopsy

03 Incisional biopsy
An irregular portion of tissue is removed from the lesion by a surgeon with a scalpel. The surgeon cuts directly into the lesion and removes a small piece for biopsy. There is no attempt toremove the lesion or obtain a rim of normal tissue around the lesion (negative margins). This procedure has generally been replaced by FNA or needle core biopsy. An incisional biopsy should not be confused with an excisional biopsy where the surgeon intended to remove the entire lesion but microscopic disease was left in the breast (positive margins).

04 Core biopsy small diameter (approximately 1mm diameter)
A cylindrical portion of tissue is removed from the lesion with a cutting needle (usually 14 gauge). The resulting biopsy is approximately 1 mm in diameter and 1-1.5 cm long. The tissue is handled like other surgical procedures, tissue sections are cut and examined by surgical pathology.

05 Core biopsy large diameter – vacuum assist (approximately 3mm diameter, such as mammotome system)
A cylindrical portion of tissue is removed from the lesion with a cutting needle (usually 11gauge). Vacuum assistance is used to pull the tissue into the cutting device. The resulting biopsies are approximately 3 mm in diameter and 1.5 cm long. The tissue is handled like other surgical procedures, tissue sections are cut and examined by surgical pathology. This code would be used for a large core needle biopsy of an invasive breast carcinoma or biopsy of DCIS with mammographic calcifications

06 Core biopsy NOS

07 Surgical biopsy NOS (excisional biopsy/core biopsy/incisional biopsy)

08 FNA
Fine needle aspiration biopsy is generally performed through a small needle (21-23 gauge). Cells are obtained from the lesion and examined by cytology. This code would be used for a fine needle aspiration of a fibroadenoma or a cyst aspirate.

09 ABBI
Combined image guided and removal systems, such as the "ABBI" system (US Surgicals), use radiologic imaging combined with an integrated very large core tissue removal apparatus (0.5 – 2.0 cm diameter).

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Date: March 14th, 2002

To: All SEER participants

From: April Fritz and Lynn Ries

REVISION OF EXTENSION FIELDS FOR BREAST CANCER

The SEER Program will expand the choices of EOD Extension codes for the breast cancer to document whether the tumor size recorded is other than for purely invasive cancers.

Purpose:	To reduce the number of cases that are unstageable in the TNM conversion algorithm.
Background:	In the 1999 breast cancer data, it became apparent that more and more path reports were only recording the size of the entire lesion and not the invasive component (resulting in 999 codes for breast tumor size). This has lead to many breast cancer cases being staged as unknown instead of stage I or II. The graph (Appendix 2) shows that the reate of unknown breast cancer has nearly doubled between 1998 and 1999 for women 50-64, and stage I has dropped dramatically. This shift is highly likely to be due to the tumor size rule rather than an actual shift in stage.
Cases affected:	All breast cancer cases with Tumor Size code 999 and Extension code 10, 20, or 30.
Diagnosis date:	*Current SEER registries:* diagnosed between January 1, 1998 and December 31, 2002. *Expansion SEER Registries:* diagnosed between January 1, 2000 and December 31, 2002.
Procedure:	Select all breast cancer cases (non-lymphomas) with ’10, ‘’20, ‘ or ‘30’ in the EOD extension and ‘999’ for tumor size diagnosed after January 1, 1998. For each case, review the case and code size and EOD extension according to the attached dorumentation (Appendix 1). Changes should be recorded in the file that is submitted to NCI-SEER.
Completion date:	Review of cases diagnosed January 1, 1998 through December 31, 2000 must be completed by and included with the Feb 1, 2003 submission. If possible, the cases diagnosed in 2001 should also be reviewed by February 1, 2003, but if this is a problem for 2001 cases, they may be submitted in the August 2003 submission.

SEER Edits: To accommodate the new codes, SEER*Edits will be revised and the changes will be distributed to participating regions as soon as possible.

Note 1: Several registries have asked whether they should also review cases with tumor size codes 009 and 019. The answer is that NCI-SEER is not requiring review of those cases. If an individual registry chooses to review them, they can. The purpose of this review is to derive a tumor size that allows as many cases as possible to be converted to a TNM stage group. Codes 009 and 019 already indicate that the tumor, whether purely invasive or mixed invasive and in situ, is less than 2 cm, and therefore a TNM Tumor category of T1 can be inferred. Summary staging is not affected.

Note 2: A number of people asked about requiring software vendors to make changes in hospital registry software. The consensus is that, assuming that SEER changes over to the Collaborative Staging System with cases diagnosed January 1, 2003, and after, the ability to collect tumor size information will be captured in a different way. It is not feasible to require hospital software vendors to make the changes for the remainder of 2002 cases and then change again for 2003.

GUIDELINES FOR 3/2002 SEER BREAST EOD CHANGES:

(If you have a question as to whether or not any of these guidelines fit the case you are coding, do not hesitate to ask.)

1) For cases diagnosed 1998 and later, it appears flat SEER's intention is that extension codes 10, 20, and 30 should never be used. It looks like you must always select one of the codes listed as a subcategory. See Nancy or Chris if you have a problem in selecting what you think is the appropriate code.
2) If tumor size is coded to unknown (999), extension must to be coded to one of the following codes: 11, 17, 18, 21, 27, 28, 31, 37, or 38.
3) When you have a clinical size and your only path is an incisional biopsy, remember that what you are coding in the subcategories under 10, 20, and 30, included a description of what you know about the size you coded in cols. 1-3. For example: An H&P described a 6 cm. breast mass that was fixed to the skin. The only path was a core needle bx of the breast tumor showing invasive ductal carcinoma. EOD cols. 1-3 were coded to 060 and extension was code to 28 (Skin infil. Of primary breast, unknown if invasive and in situ components present unknown if tumor size represents mixed tumor of a "pure" tumor). Coding rationale: You know that the entire core needle bx is invasive, but you do not know if this is true for the remainder of the 6 cm. tumor.
4) A path report for a breast case will usually say one or more of the following about an intraductal component:
   - It meets the requirement for EIC (extensive intraductal component)
   - It does not meet the requirement for EIC
   - It represents a given percentage
   - It is a minor component, NOS (we will consider "minor component NOS" to be equivalent to "minimal")
5) The mention of focal/focus/foci of in situ ca does not necessarily mean it fits the definition of "minimal". For example, it may state "The foci of in situ tumor meet the requirement of EIC". Because this is stated to meet the requirement of extensive intraductal component (EIC), it would be coded to 15, 25, or 35 and <u>not</u> to 14, 24, or 34.

   If the path report states focal/focus/foci of in situ ca (and there is no mention of whether or not it is minimal or extensive), do not assume that it is minimal. Example: Path report states: Invasive ductal carcinoma with focal DCIS. Tumor size 3 cm. size would be coded 030. Extension would be coded 16 (Invasive and in situ components present size of entire tumor coded in Tumor Size [size of invasive component not stated] AND proportions of in situ and invasive not known).

6) The in situ and invasive components described in path reports may be found intermixed in the same tumor or may be separate tumors. For example, the description might say "Invasive ductal carcinoma, 2 cm. in diameter with an adjacent intraductal tumor." This would be coded to 13 (Invasive and in situ components present size of invasive component stated and coded in Tumor Size).

7) The incisional bx may show the presence of both in situ and invasive tumor, but the excisional bx, where a tumor size is given, may show only one of these behaviors. This type of case should be coded to an extension code that includes both in situ and invasive tumor in the description. Example: Core needle bx path states that there is intraducal and invasive ductal tumor. Excisional bx path shows only invasive ductal and gives a tumor size of 2 cm. Size would be coded to 020 and extension coded to 13 (Invasive and in situ components present size of invasive component stated and coded in Tumor Size).

Appendix 1. Revised Breast Cancer EOD Codes
Effective for cases diagnosed January 1, 1998 through December 31, 2002

BREAST
C50.0-C50.6, C50.8-C50.9

C50.0	Nipple	*
C50.1	Central portion of breast (subareolar)	*
C50.2	Upper inner quadrant of breast	*
C50.3	Lower inner quadrant of breast	*
C50.4	Upper outer quadrant of breast	*
C50.5	Lower outer quadrant of breast	*
C50.6	Auxiliary tail of breast	*
C50.8	Overlapping lesion of breast	*
C50.9	Breast, NOS	*

* Laterality must be coded for this site.

SIZE OF PRIMARY TUMOR
(from pathology report, operative report physical examination; mammography examination—in priority order, if multiple masses, code largest diameter)

a. Record the size of the invasive component, if given.
b. If both is *in situ* and an invasive component are present, and the invasive component is measured, record the size of the invasive component even if it is smaller.
   Example: Tumor is mixed in situ and invasive adenocarcinoma, total 3.7 cm in size, of which 1.4 cm is invasive. *Record tumor size ay 014.*
c. If the size of the invasive component is *not* given, record the size of the entire tumor from the surgical report, pathology report, radiology report or clinical examination and document how the size was determined in the EOD Extension field.
   Example: Infiltrating duct carcinoma with 20% in situ component; total size 2.3 cm. *Record tumor size as 023. EOD Extension code 14, 24, or 34.*
   Example: Extensive duct carcinoma in situ covering a 1.9 cm area with small areas of invasive ductal carcinoma. *Record tumor size as 019. EOD Extension code 15, 25, or 35.*
d. For purely *in situ* lesions, code the size as stated.

Code

000	Nor mass; no tumor found; no Paget's disease	
001	Microscopic focus or foci only	
002	Mammography/xerography diagnosis only with no size given (tumor not clinically palpable)	
	mm	cm
003	≥ 3	≥ .03
…		
…		
009	9	0.9
010	10	1.0
…		
099	99	9.9
100	100	10.0
…		
…		
990	900 +	99.0+
997	Paget's Disease of nipple with no demonstrable tumor	
998	Diffuse; widespread: 3/4's or more of breast; inflammatory carcinoma	
999	Not stated	

*Pagetoid involvement is synonymous with Pagets disease when talking about the nipple of the breast. If talking about the skin of other areas of the breast, it should not be accepted as Paget's unless the nipple is also stated to be involved. If the nipple is not involved, code Pagetoid involvement of the skin of the breast to direct extension to the skin.

5/77 Dr. Roth; 12/92 Dr. Roth

EXTENSION

00 IN SITU: Noninfiltrating, intraductal WITHOUT infiltration; lobular neoplasia

05 *Paget's disease (WITHOUT underlying tumor)

10 Confined to breast tissue and fit including nipple and/or areola; *Paget's disease (with underlying tumor) 10/28/91 CN

- 11 Entire tumor reposted as invasive (no in situ component reported)
- 13 Invasive and in situ components present, size of invasive component stated and coded in Tumor Size
- 14 Invasive and in situ components present, size of entire tumor coded in Tumor Size (size of invasive component not stated) AND in situ described as minimal (less than 25%)
- 15 Invasive and in situ components present, size of entire tumor coded in Tumor Size (size of invasive component not stated) AND in situ described as extensive (25% or more)
- 16 Invasive and in situ components present size if entire tumor coded in Tumor Size (size of invasive component not stated) AND proportions of in situ and invasive not known
- 17 Invasive and in situ components present, unknown size of tumor (Tumor Size coded 999)
- 18 Unimown if invasive and in situ components present, unknown if tumor size represents mixed tumor or a "pure" tumor

20 Invasion of subcutaneous tissue
Skin infiltration of primary breast including skin of nipple and/or areola
Local infiltration of dermal lymphatics adjacent to primary tumor involving skin by direct extension

- 21 Entire tumor reported as invasive (no in situ component reported)
- 23 Invasive and in situ components present, size of invasive component stated and coded in Tumor Size
- 24 Invasive and in situ components present, size of entire tumor coded in Tumor Size (size of invasive component not stated) AND in situ described as minimal (less than 25%)

25 Invasive and in situ components present, size of entire tumor coded in Tumor Size (size of invasive component not stated) AND in situ described as extensive (25% or more)
26 Invasive and in situ components present, size of entire tumor coded in Tumor Size (size of invasive component not stated) AND proportions of in situ and invasive not known
27 Invasive and in situ components present, unknown size of tumor (Tumor Size coded 999)
28 Unknown if invasive and in situ components present unknown if tumor size represents mixed tumor of a "pure" tumor

30 Invasion of (or fixation to) pectoral fascia or muscle; deep fixation' attachment or fixation to pectoral muscle or underlying tissue
31 Entire tumor reported as invasive (no in situ component reported)
33 Invasive and in situ components present, size of invasive component stated and coded in Tumor Size
34 Invasive and in situ components present, size of entire tumor coded in Tumor Size (size of invasive component not stated) AND in situ described as minimal (less than 25%)
35 Invasive and in situ components present size of entire tumor coded in Tumor Size (size of invasive component not stated) AND in situ described as extensive (25% or more)
36 Invasive and in situ components present size of entire tumor coded in Tumor Size (size of invasive component not stated) AND proportions of in situ and invasive not known
37 Invasive and in situ components present unknown size of tumor (Tumor Size coded 999)
38 Unknown if invasive and in situ components present, unknown if tumor size represents mixed tumor or a "pure" tumor

40 Invasion of (or fixation to) chest wall, ribs, intercostals or serratus anterior muscles

50 Extensive skin involvement:
Skin edema, peau d'orange, "pigskin", 'en cuirasse lenticular nodule(s), inflammation of skin, erythema, ulceration of skin of breast, stellite nodule(s) in skin of primary breast
60 (50) + (40)

70 Inflammatory carcinoma, incl. Diffuse (beyond that directly overlying the tumor) dermal lymphatic permeation or infiltration

80 FURTHER contiguous extension:
Skin over sternum, upper abdomen, axilla or opposite breast

85 Metastasis:
Bone, other than adjacent rib
Lung
Breast contralateral—if stated as metastatic
Adrenal gland
Ovary
Satellite nodule(s) in skin other than primary breast

99 UNKNOWN if extension or metastasis

Note 1: Changes such as dimpling of the skin, tethering, and nipple retraction are caused by tension on Cooper's ligament(s), not by actual skin involvement. They do not alter the classification.

Note 2: Consider adherence, attachment, fixation, induration, and thickening as clinical evidence of extension to skin or subcutaneous tissue; code '20'

Note 3: Consider "fixation, Nos" as involvement of pectoralis muscle; code '30'

Note 4:	If extension code is:	Behavior code must be:
	00	2
	05	2 or 3
	10	3

Note 5: Measure the size of the metastasis in the lymph node to determine codes 1-4, not the size of the lymph node itself.

Reference: Breast Cancer Protocol and Case Summary, not E, College of American Patbologists, August 2000. [http//www.cap.org/html/ftpdirectory/cancerftp.htm]

The Lymph Nodes Extension field is unchanged

SCC Appendix 11

SNOMED M (morphology) code conversion

In the Pathology Information file, each record (tissue sample) is coded into one or more of the following variables describing the pathology result:

- Invasive, sub-types: Ductal, Lobular, Mixed, Other, NOS
- In situ, subtypes: Ductal, Lobular, Mixed, Other, NOS
- Atypical hyperplasia, sub-types: Ductal, Lobular, Mixed, Other, NOS
- Ductal hyperplasia
- Metastases
- Fibroadenoma
- Phyllodes tumor
- Calcification
- Benign
- Inconclusive
- Lymph node tissue

Sites can either send pathology results directly coded into the variables above or send up to five SNOMED (morphology) codes per tissue sample that will be converted into the above results by the SCC. If a site sends SNOMED codes, the SCC conversion overwrites any information that was coded in the specific variables above.

The SNOMED codes in the pathology file consist of five digits where the first four digits is the histology and the last digit is the behavior. All codes are accepted except the following:

- Codes containing an ‘X’
- Codes 88888 (structural missing) or 99999 (unknown)
- Codes ending in 4, 7, or 9
- Codes with first four digits less than 8000 (non-neoplasm) and ending in 2, 3 or 6

In general, the SCC conversion is as follows:

- Invasive - behavior code 3, first four digits used to determine sub-type
- In situ - behavior code 2, first four digits used to determine sub-type
- Atypical hyperplasia – includes atypical hyperplasia of any kind, ductal or lobular
- Ductal hyperplasia – includes ductal hyperplasia and ductal papilloma
- Metastases – behavior code=6
- Fibroadenoma
- Phyllodes tumor – includes malignant Pyllodes tumor
- Calcification
- Benign - behavior code of ‘0’ or ‘1’ and not classified into one of the above results, includes the artificial SNOMED codes 780DF and 780RS
- Inconclusive – poor specimen

- Lymph node tissue – includes the artificial SNOMED code 917LN

If there is more than one Invasive, In situ, or Atypical hyperplasia sub-type, the most serious result is taken in the following order (from most to least serious): Mixed, Ductal, NOS, Lobular, Other.

Invasive results of all sub-types and In situ results of sub-type Ductal, Mixed, or NOS are considered a cancer diagnosis. All other results are not considered cancer including In situ of sub-type Lobular or Other and Phyllodes tumor, malignant.

Lymphomas have SNOMED codes between 9590x-9729x and may be included in the pathology file, but they are not given a result or included as cancer. Sarcomas have SNOMED codes between 880xx-958xx, but not all codes in this range are sarcomas. Sarcomas except for cystosarcoma phyllodes can be detected by mammography and are, therefore, included as cancer and classified as Invasive, subtype Other if the behavior code is '3'. Cystorsarcoma phyllodes regardless of the behavior code are all coded in the Phyllodes tumor variable and not included as cancer. All other sarcomas with a behavior code of '0' are classified as Benign.

If the tissue sample was obtained by fine needle aspiration and the result is missing, the SNOMED codes are used to code the result as follows:

Coding of FNA result from SNOMED conversion		
Code	Description	SNOMED conversion
0	Negative/benign	In situ of subtype Other, Ductal hyperplasia, Metastases, Fibroadenoma, Phyllodes tumor, Calcification, Benign, Lymph node tissue, and Lymphoma
1	Atypia	Atypical hyperplasia
2	Suspicious for malignancy	-----
3	Positive	Invasive
4	Inconclusive/unsatisfactory	Inconclusive
9	Unknown	Missing

The following are some examples of how to code Radiologic events. If you encounter an event which is not covered by these examples, please e-mail the SCC for assistance and instructions on how it should be coded. We encourage you to send us your comments and suggestions. Contact us if you have any questions.

Example 1 - *The most common radiologic event you will code is the case of a simple bilateral screening with one interpretation. The following table summarizes the fields and codes you should use to capture this event in a radiologic record. For example - we have a screening mammogram on 4/23/98.*

Indication for Exam	Mammogram	Screening Views	Diagnostic Views	Ultrasound	Used Additional View	Used Ultrasound	Information Date
1	4	4	0	0	0	0	4/23/98

Example 2 - *Two radiologic events occur in one day. The first is a simple bilateral screening. The second is an additional view of the left breast (e.g., unilateral left) taken in conjunction with the screening mammogram. Both these events are used to make one interpretation. The following table summarizes the fields and codes you should use to capture these radiologic events in a record.* ***Note:*** *Since there is only one interpretation, you would send one record.*

Indication for Exam	Mammogram	Screening Views	Diagnostic Views	Ultrasound	Used Additional View	Used Ultrasound	Information Date
1	4	4	2	0	1	0	3/21/98

Example 3 - *A woman receives a diagnostic (symptomatic) mammogram, but the interpretation is not done until an ultrasound is completed the next day. The following table summarizes the fields and codes you should use to capture this radiologic event in a record.*

Indication for Exam	Mammogram	Screening Views	Diagnostic Views	Ultrasound	Used Additional View	Used Ultrasound	Information Date
4	4	0	4	0	0	1	4/4/98

Note that we've coded Ultrasound = 0 because the ultrasound was done on a different day. For cases where it is not possible to determine whether or not the ultrasound was done on the same day as the mammogram, code as if it were done on the same day (e.g. Ultrasound = 1).

Note also that a second record should be created that corresponds to the ultrasound performed in this example, and the type of record created depends on how the ultrasound result is coded. Use these guidelines to determine which type of second record you should create:

I. *Create a Radiology record if the ultrasound result is given in the ACR lexicon. If this were the case, for example, and the Assessment overall = "normal with benign finding", you would create a Radiology record that looked like this:*

Indication for Exam	Mammogram	Screening Views	Diagnostic Views	Ultrasound	Used Additional View	Used Ultrasound	Assessment Overall	Information Date
4	0	0	0	2	0	1	2	4/5/98

II. *Create a Radiology Follow-up record if the ultrasound result is NOT given in the ACR lexicon. If this were the case, for example, and the ultrasound result = "Normal", you would create an Additional Imaging Follow-up record that looked like this:*

Procedure Sequence	Procedure Type	Procedure Result	Information Date
1	1	0	4/5/98

Example 4 - *Two interpretations occur on the same day. In the first interpretation, a screening assessment is done and found to be incomplete (first record). Then a stand-alone diagnostic additional view is done on the left breast (second record). The following table summarizes the fields and codes you should use to capture these two radiologic events in two records. Note: Since two interpretations are made, you should send two records. In the first record you would code EXAM SEQUENCE = 1, and in the second record you would code EXAM SEQUENCE = 2. This is done to distinguish among events on the same day. Note also that the Assessment Overall (ACR lexicon value) will usually reflect the greater of the two Left and Right Accessment values, except that a zero indicates more assessment is being done on one of the breasts. An example of this exception is demonstrated in the first record below. In the second record, you would code Assessment Right=8 because an additional view was only done on the left breast.*

Indication for Exam	Mammogram	Screening Views	Diagnostic Views	Ultra-sound	Used Addt'l View	Used Ultrasound	Assessment Right	Assessment Left	Assessment Overall	Information Date
1	4	4	0	0	0	0	1	0	0	4/23/98
2	2	0	2	0	1	0	8	3	3	4/23/98

SCC Coding Instructions for Self-reported Breast Symptoms
Last updated: 6/19/03

Symptoms should be coded as marked when check boxes or bubbles for Lump, Nipple discharge, Pain, and Other are on the Patient Information Form. If none of the check boxes or bubbles are filled in, but a symptom description is written in, then code as "Other" symptom. If **only** free text information is available, the description should be used to classify the symptom(s). Below are descriptions (from GHC data) that can be used as a general guideline to do the classification. If doing a word search, you may need to include misspelled words such as "Ahce" for Ache. Also, you should check that that a symptom that has gone away is not being coded such as "Lump removed".

Lump
Lump
Hardness
Description of size such as Penny-size
(do not include: Lumpectomy, Lumps, Lumpy, Lumpiness, Cyst-type lump, Fibrocystic lump)

Nipple discharge
Discharge
Fluid, Liquid, Color
Blood, Bleed

Pain
Pain
Ache, Achy, Achiness, Aching
Tender, Tenderness
Sore, Soreness
Discomfort, Uncomfortable, Sensation, Sensitivity, Twinge

Other, includes but is not limited to:
Fibroadenoma/Fibrocystic changes/Nodularity
Lumps, Soft lumps, Lumpy, Lumpiness, Fibroids, Fibrous, Fibrocsytic, Fibrosis, Small nodule, Ropey, Ropiness
Cyst
Cyst, Lump was drained, Fluid was removed, Cyst type lump, Fibrocystic lump
Nipple retraction
Invert, Inversion, Recessed, or Flattened with reference to the nipple
Rash or Redness
Rash, Red, Redness, Reddish (do not include Reduction)
Swelling
Swell, Swelling, Swollen, Fullness
Asymmetry
Asymmetry, Larger, Bigger, Grown, Smaller, Engorged, Size in reference to one breast
Itching
Itch, Itchy, Itchiness, Itching

Burning
Burn, Burning, Hot

Other, includes but is not limited to: (continued)

Thickening
Thick, Thickening

Bruise
Bruise, Bruising

Previous cancer diagnosis or treatment
Cancer, Lumpectomy, Mastectomy, Radiation

Breast implants
Implant

Mole

Dimple

Lymph node

Spots

Skin

Histologic Type ICD-O-3

Item Length: 4
NAACCR Item #: 522
NAACCR Name: Histologic Type ICD-O-3

The data item Histologic Type describes the microscopic composition of cells and/or tissue for a specific primary. In the rare instance where there is no tissue pathology, code the histology the medical practitioner uses to describe the tumor. The tumor type or histology is a basis for staging and determination of treatment options. It affects the prognosis and course of the disease.

The *International Classification of Diseases for Oncology*, Third Edition (ICD-O-3) is the standard reference for coding the histology for tumors diagnosed in 2001 and later. Do not record the 'M' that precedes the histology code. Refer to *ICD-O-3* for guidance in coding the histology. See sections *Coding Guidelines for Topography and Morphology.* and *Summary of Principal Rules for Using the ICD-O*, Third Edition.

The histology can be coded only after the determination of multiple primaries has been made.

Synonyms and Equivalent Terms

Mixed, **combined**, and **complex** are **usually** used as synonyms when describing histology.

Definitions

Cancer, NOS (8000) and **carcinoma**, NOS (8010) are not interchangeable.

Carcinoma, NOS (8010) and **adenocarcinoma** (8140) are interchangeable (See ICD-O-3).

Complex (mixed, combined) histology: The pathologist uses **multiple histologic terms** to describe a tumor. The histologic terms are frequently connected by the word "and" (for example ductal and lobular carcinoma).

Different histology: The first three digits of the ICD-O-3 histology code are different.

Different subtypes: The NOS cell types often have multiple subtypes; for example, scirrhous adenocarcinoma (8143), adenocarcinoma, intestinal type (8144), and linitis plastica (8141) are subtypes of Adenocarcinoma, NOS (8140).

Majority of Tumor:

Terms that mean the majority of tumor	Terms that DO NOT mean the majority of tumor
Predominantly	With foci of
With features of	Focus of/focal
Major	Areas of
Type[1]	Elements of
With …. Differentiation[1]	Component[1]
Pattern (Only if written in College of American Pathologists [CAP] Protocol)[2]	
Architecture (Only if written in College of American Pathologists [CAP] Protocol)[2]	

Note: Examples of CAP protocols for specific primary sites may be found on the website - http://www.cap.org/cancerprotocols/protocols_intro.html

Mixed/combined histology: Different cell types in one tumor; terms used interchangeably. In most cases, the terms mixed and combined are used as synonyms; however the term mixed may designate a specific tumor.

Not Otherwise Specified (NOS): "Not Otherwise Specified."

Same histology: The first three digits of the ICD-O-3 histology code are identical.

Coding Instructions

Refer to "Determining Multiple Primaries" in the first section of this manual to determine the number of primaries. Use all of the information for a single primary to code the histology.

1. If there is no tumor specimen, code the histology described by the medical practitioner.

   Example 1: The patient has a CT scan of the brain with a final diagnosis of glioblastoma multiforme (9440). The patient refuses all further workup or treatment. Code the histology to glioblastoma multiforme (9440).

   ***Example 2*:** If the physician says that the patient has carcinoma, code carcinoma, NOS (8010).

2. Use the histology stated in the **final diagnosis** from the pathology report. Use the pathology from the procedure that resected the majority of the primary tumor.

   If a more specific histologic type is definitively described in the microscopic portion of the pathology report or the comment, code the more specific diagnosis.

3. Lymphomas may be classified by the **WHO** Classification, **REAL** system, **Rappaport,** or **Working Formulation**. The WHO Classification is preferred. See page 13 in the ICD-O-3 for a discussion of hematologic malignancies.

1 Effective 1/1/1999 diagnosis

2 Effective 1/1/2003 diagnosis

4. Cases reported to SEER cannot have a metastatic (/6) behavior code. If the only pathology specimen is from a metastatic site, code the appropriate histology code and the malignant behavior code /3. The primary site and its metastatic site(s) have the same basic histology.

Histology Coding Rules for Single Tumor

- The rules are in hierarchical order. Rule 1 has the highest priority.
- Use the rules in priority order.
- Use the first rule that applies to the case. (Do not apply any additional rules.)

1. Code the histology if only one type is mentioned in the pathology report.

2. Code the **invasive histology** when both invasive and in situ tumor are present

   Example: Pathology report reads infiltrating ductal carcinoma and cribriform ductal carcinoma in situ. Code the invasive histology 8500/3.

   Exception: If the histology of the invasive component is an 'NOS' term (e.g., carcinoma, adenocarcinoma, melanoma, sarcoma), then code the histology of the specific term associated with the in situ component and an invasive behavior code.

3. Use a **mixed** histology code if one exists

   Examples of mixed codes: (This is not a complete list, these are examples only)

   8490 Mixed tumor, NOS
   9085 Mixed germ cell tumor
   8855 Mixed liposarcoma
   8990 Mixed mesenchymal sarcoma
   8951 Mixed mesodermal tumor
   8950 Mixed Mullerian tumor
   9362 Mixed pineal tumor
   8940 Mixed salivary gland tumor, NOS
   9081 Teratocarcinoma, mixed embryonal carcinoma and teratoma

4. Use a **combination** histology code if one exists

   Examples of combination codes: (This is not a complete list; these are examples only)

   8255 Renal cell carcinoma, mixed clear cell and chromophobe types
   8523 Infiltrating duct carcinoma mixed with other types of carcinoma
   8524 Infiltrating lobular carcinoma mixed with other types of carcinoma
   8560 Adenosquamous carcinoma
   8045 Combined small cell carcinoma, combined small cell-large cell

5. Code the **more specific term** when one of the terms is 'NOS' and the other is a more specific description of the same histology.

   Example 1: Pathology report reads poorly differentiated carcinoma, probably squamous in origin. Code the histology as squamous cell carcinoma rather than the non-specific term "carcinoma."

Example 2: The pathology report from a nephrectomy reads renal cell carcinoma (8312) (renal cell identifies the affected organ system rather than the histologic cell type) in one portion of the report and clear cell carcinoma (8310) (a histologic cell type) in another section of the report. Code clear cell carcinoma (8310); renal cell carcinoma (8312) refers to the renal system rather than the cell type, so renal cell is the less specific code.

6. Code the **majority** of tumor.

   a. Based on the pathology report description of the tumor.
   b. Based on the use of majority terms. See definition for majority terms.

7. Code the **numerically higher** ICD-O-3 code. This is the rule with the lowest priority and should be used infrequently.

Histology Coding Rules for Multiple Tumors with Different Behaviors in the Same Organ Reported as a Single Primary

1. Code the histology of the invasive tumor when one lesion is in situ (/2) and the other is invasive (/3).

   Example: At mastectomy for removal of a 2 cm invasive ductal carcinoma, an additional 5 cm area of intraductal carcinoma was noted. Code histology and behavior as invasive ductal carcinoma (8500/3).

Histology Coding Rules for Multiple Tumors in Same Organ Reported as a Single Primary

1. Code the histology when multiple tumors have the same histology.
2. Code the histology to adenocarcinoma (8140/_; in situ or invasive) when there is an adenocarcinoma and an adenocarcinoma in a polyp (8210/_, 8261/_, 8263/) in the same segment of the colon or rectum.
3. Code the histology to carcinoma (8010/_; in situ or invasive) when there is a carcinoma and a carcinoma in a polyp (8210/_) in the same segment of the colon or rectum.
4. Use a **combination** code for the following:

   a. Bladder: Papillary and urothelial (transitional cell) carcinoma (8130)
   b. Breast: Paget Disease and duct carcinoma (8541)
   c. Breast: Duct carcinoma and lobular carcinoma (8522)
   d. Thyroid: Follicular and papillary carcinoma (8340)

5. Code the more specific term when one of the terms is 'NOS' and the other is a more specific description of the same histology.

6. Code all other multiple tumors with different histologies as multiple primaries.

How to determine same vs different histologies for benign and borderline primary intracranial and CNS tumors (C70.0-C72.9, C75.1-C75.3) (Based on histologic groupings)

When there are **multiple tumors**, use the following table to determine if the tumors are the same histology or different histologies.

Histologic groupings to determine same histology for non-malignant brain tumors

Histologic Group	ICD-O-3 Code
Choroid plexus neoplasm	9390/0, 9390/1
Ependymoma	9383, 9394, 9444
Neuronal and neuronal-glial neoplasm	9384, 9412, 9413, 9442, 9505, 9506
Neurofibroma	9540/0, 9540/1, 9541, 9550, 9560
Neurinomatosis	9560
Neurothekeoma	9562
Neuroma	9570
Perineurioma, NOS	9571

Instructions for Using Histologic Group Table

1. **Both** histologies are listed **in** the **table**
   a. Histologies that are in the same **grouping** or row in the table are the **same histology**.

      Note: Histologies that are in the same grouping are a progression, differentiation or subtype of a single histologic category.

   b. Histologies listed in **different groupings** in the table

2. One or both of the **histologies** is **not** listed **in** the **table** are **different histologies**.

   a. If the **ICD-O-3 codes** for both histologies have the **identical** first three digits, the histologies are the **same**.
   b. If the first three digits of the **ICD-O-3** histology code are **different**, the histology types are different.

Leukemia/Lymphoma (Chronic Lymphocytic Leukemia [CLL} and Small Lymphocytic Lymphoma [SLL])

1. Code the diagnosis of chronic lymphocytic leukemia (9823/3) and/or small lymphocytic lymphoma (9670/3) to SLL if there are positive lymph nodes or deposits of lymphoma/leukemia in organs or in other tissue. Code the histology to CLL if there are no physical manifestations of the disease other than a positive blood study or positive bone marrow.

Behavior Code

Item Length: 1
NAACCR Item #: 523
NAACCR Name: Behavior Code ICD-O-3

SEER requires registries to collect malignancies with in situ /2 and malignant /3 behavior codes as described in ICD-O-3. SEER requires registries to collect benign /0 and borderline /1 intracranial and CNS tumors for cases diagnosed on or after 1/1/2004. Behavior is the fifth digit of the morphology code after the slash (/). See ICD-O-3 (page 66) for a discussion of the behavior code.

Codes

0 Benign (Reportable for intracranial and CNS sites only)
1 Uncertain whether benign or malignant, borderline malignancy, low malignant potential, and uncertain malignant potential (Reportable for intracranial and CNS sites only)
2 Carcinoma in situ; intraepithelial; noninfiltrating; noninvasive
3 Malignant, primary site (invasive)

Coding Instructions

Behavior codes 0 (benign) and 1 (borderline) are reportable for intracranial and CNS sites only, beginning with January 1, 2004 diagnoses.

Metastatic or Nonprimary Sites

Cases reported to SEER cannot have a metastatic (/6) behavior code. If the only pathologic specimen is from a **metastatic** site, code the appropriate histology code and the malignant behavior code /3. The primary site and its metastatic site(s) have the same basic histology.

In situ

Clinical evidence alone cannot identify the behavior as in situ; the code must be based on pathologic examination and documentation.

In situ and Invasive

Code the behavior as malignant /3 if any portion of the primary tumor is invasive no matter how limited; i.e. microinvasion.

Example: Pathology from mastectomy: Large mass composed of intraductal carcinoma with a single focus of invasion. Code the behavior as malignant /3.

ICD-O-3 Histology/Behavior Code Listing

ICD-O-3 may have only one behavior code, either in situ /2 or malignant /3, listed for a specific histology. If the pathology report describes the histology as in situ /2 and the ICD-O-3 histology code is only listed with a malignant /3 behavior code, assign the histology code listed and change the behavior code to in situ /2. If the pathology report describes histology as malignant /3 and the ICD-O-3 histology code is only listed with an in situ /2 behavior code, assign the histology code listed and change the behavior code to malignant /3. See the Morphology and Behavior Code Matrix discussion on page 29 in ICD-O-3.

Example: The pathology report says large cell carcinoma in situ. The ICD-O-3 lists large cell carcinoma as 8013/3; there is only a malignant listing. Change the /3 to /2 and code the histology and behavior code to 8013/2 as specified by the physician.

Synonyms for In situ

AIN III (C211)
Behavior code '2'
Bowen disease (not reportable for C440-C449)
Clark level I for melanoma (limited to epithelium)
Confined to epithelium
Hutchinson melanotic freckle, NOS (C44_)
Intracystic, non-infiltrating
Intraductal
Intraepidermal, NOS
Intraepithelial, NOS
Involvement up to, but not including the basement membrane
Lentigo maligna (C44_)
Lobular, noninfiltrating (C50_)
Noninfiltrating
Noninvasive
No stromal invasion/involvement
Papillary, noninfiltrating or intraductal
Precancerous melanosis (C44_)
Queyrat erythroplasia (C60_)
Stage 0 (except Paget's disease (8540/3) of breast and colon or rectal tumors confined to the lamina propria)
VAIN III (C529)
VIN III (C51_)

Grade, Differentiation or Cell Indicator

Item Length: 1
NAACCR Item #: 440
NAACCR Name: Grade

Grade, Differentiation (Codes 1, 2, 3, 4, 9)
Pathologic testing determines the grade, or degree of differentiation, of the tumor. For cancers, the grade is a measurement of how closely the tumor cells resemble the parent tissue (organ of origin). Well differentiated tumor cells closely resemble the tissue from the organ of origin. Poorly differentiated and undifferentiated tumor cells are disorganized and abnormal looking; they bear little or no resemblance to the tissue from the organ of origin.

Pathologists describe the tumor grade by levels of similarity. Pathologists may define the tumor by describing two levels of similarity (two-grade system which may be used for colon); by describing three levels of similarity (three-grade system); or by describing four levels of similarity (four-grade system). The four-grade system describes the tumor as grade I, grade II, grade III, and grade IV (also called well differentiated, moderately differentiated, poorly differentiated, and undifferentiated/anaplastic). These similarities/differences may be based on pattern (architecture), cytology, or nuclear features or a combination of these elements depending upon the grading system that is used. The information from this data item is useful for determining prognosis.

Cell Indicator (Codes 5, 6, 7, 8, 9)
Describes the lineage or phenotype of the cell that became malignant. Cell indicator codes apply to lymphomas and leukemias and for these diagnoses, cell indicator takes precedence over grade/differentiation.

See the ICD-O-3 chapter *Morphology* for further instructions on coding grade.

Codes

1 Grade I; grade i; grade 1; well differentiated; differentiated, NOS
2 Grade II; grade ii; grade 2; moderately differentiated; moderately well differentiated; intermediate differentiation
3 Grade III; grade iii, grade 3; poorly differentiated; dedifferentiated
4 Grade IV; grade iv; grade 4; undifferentiated; anaplastic
5 T-cell; T-precursor
6 B-Cell; Pre-B; B-precursor
7 Null cell; Non T-non B
8 NK cell (natural killer cell) (effective with diagnosis 1/1/1995 and after)
9 Grade/differentiations unknown, not stated, or not applicable

General Coding Rules

1. The site-specific coding guidelines in Appendix C also include rules for coding grade for the following primary sites: prostate, kidney, lymphoma, leukemia, astrocytoma, and sarcoma.

2. Code the grade from the final diagnosis in the pathology report. If there is more than one path report, and the grades in the final diagnoses differ, code the highest grade for the primary site from any pathology report.

3. If grade is not stated in the final pathology diagnosis, use the information in the microscopic section, addendum, or comment to code grade.

4. If more than one grade is recorded for a single tumor, code the highest grade, even if it is a focus.

   Example: Pathology report reads: Grade II adenocarcinoma with a focus of undifferentiated adenocarcinoma. Code the tumor grade as grade 4.

5. Code the grade from the **primary tumor** only, never from a metastatic site or a recurrence.

6. Code the grade for all **unknown primaries** to 9 (unknown grade) unless grade is explicit by histology (i.e. anaplastic carcinoma (grade = 4).

7. Code the grade of the invasive component when the tumor has **both in situ** and **invasive** portions. If the **invasive** component **grade** is **unknown**, code the grade as unknown (9).

8. Code the information from the **consult** if the specimen is sent to a specialty pathology department for a consult.

9. If there are **multiple pathology consults**, ask the pathologist or physician advisor to determine which information should be used.

10. Do **not code** the grade assigned to **dysplasia**, i.e.: High grade dysplasia (adenocarcinoma in situ) would be coded to 9 (unknown grade).

Coding Grade for Cases without Pathology or Cytology Confirmation

Code the grade of tumor given on a Magnetic Resonance Imaging (MRI) or Positron Emission Tomography (PET) report if there is no tissue diagnosis (pathology or cytology report). Use the MRI or PET grade only when there is no tissue diagnosis.

In situ Tumors

In situ tumors are not always graded. Code the grade if it is specified for an in situ lesion unless there is an invasive component. Do not code the in situ grade if the tumor has both in situ and invasive components.

Terminology Conversion Table

Terminology Conversion Table

Description	Grade	SEER Code
Differentiated, NOS	I	1
Well differentiated	I	1
Fairly well differentiated	II	2
Intermediate differentiation	II	2
Low grade	I-II	2
Mid differentiated	II	2
Moderately differentiated	II	2
Moderately well differentiated	II	2
Partially differentiated	II	2
Partially well differentiated	I-II	2
Relatively or generally well differentiated	II	2
Medium grade, intermediate grade	II-III	3
Moderately poorly differentiated	III	3
Moderately undifferentiated	III	3
Pleomorphic	III	3
Poorly differentiated	III	3
Relatively poorly differentiated	III	3
Relatively undifferentiated	III	3
Slightly differentiated	III	3
Dedifferentiated	III	3
High grade	III-IV	4
Undifferentiated, anaplastic, not differentiated	IV	4
Non-high grade		9

Two-Grade System

Some cancers are graded using a two-grade system, for an example, colon cancer. If the grade is listed as 1/2 or as low grade, assign code 2. If the grade is listed as 2/2 or as high grade, assign code 4.

Two-Grade Conversion Table

Grade	Differentiation / Description	SEER Code
1/2, I/II	Low grade	2
2/2, II/II	High grade	4

Three-Grade System

There are several sites for which a three-grade system is used, such as peritoneum, endometrium, fallopian tube, prostate, bladder and soft tissue sarcoma. The patterns of cell growth are measured on a scale of 1, 2, and 3 (also referred to as low, medium, and high grade). This system measures the proportion of cancer cells that are growing and making new cells and how closely they resemble the cells of the host tissue. Thus, it is similar to a four-grade system, but simply divides the spectrum into 3 rather than 4 categories (see Three-Grade Conversion Table below). The expected outcome is more favorable for lower grades.

If a grade is written as 2/3 that means this is a grade 2 of a three-grade system. Do not simply code the numerator. Use the following table to convert the grade to SEER codes:

Three-Grade Conversion Table*

Grade	Differentiation / Description	SEER Code
1/3, I/III	Low grade	2
2/3, II/III	Intermediate grade	3
3/3, III/III	High grade	4

Do not use for breast primaries

Breast Cancer

Priority Order for Coding Breast Cancer Grade

Code grade in the following priority order:

1. Bloom-Richardson scores 3-9 converted to grade (See following table)
2. Bloom Richardson grade (low, intermediate, high)
3. Nuclear grade only
4. Terminology
    a. Differentiation (well differentiated, moderately differentiated, etc).
5. Histologic grade
    a. Grade 1/I/i, grade 2/II/ii, grade 3/III/iii, grade 4/IV/iv

Breast Grading Conversion Table

BR Scores	BR Grade	Nuclear Grade	Terminology	Histologic Grade	SEER Code
3-5	Low	1/3; 1/2	Well differentiated	I/III; 1/3	1
6, 7	Intermediate	2/3	Moderately differentiated	II/III; 2/3	2
8, 9	High	2/2; 3/3	Poorly differentiated	III/III; 3/3	3

Bloom-Richardson (BR)

1. **BR** may **also** be **called**: modified Bloom-Richardson, Scarff-Bloom-Richardson, SBR grading, BR grading, Elston-Ellis modification of Bloom Richardson score, the Nottingham modification of Bloom Richardson score, Nottingham-Tenovus, or Nottingham grade
2. BR may be expressed in **scores** (range 3-9)
3. The score is based on three morphologic features of "invasive no-special-type" breast cancers (degree of tubule formation/histologic grade, mitotic activity, nuclear pleomorphism of tumor cells).
4. Use the Breast Grading Conversion Table to convert the score, grade or term into the SEER code
5. BR may be expressed as a **grade** (low, intermediate, high)
6. BR grade is derived from the BR score. Note that the conversion of low, intermediate, and high for breast is different from the conversion used for all other tumors.

Chemotherapy

Effective for SEER revision 1 of 3rd ed codes:
Chemotherapy field expanded to two digits (see conversion table which follows). Treatments (none or actual) in 00-09 range. Reasons treatment not administered in 80-89 range. Unknown is now 99. Codes are the same as the FORDS manual.

00 **None; chemotherapy was not part of the planned first course of therapy**

01 **Chemotherapy administered as first course therapy, but the type and number of agents is not documented in patient record.**

02 **Single-agent chemotherapy administered as first course therapy.**

03 **Multi-agent chemotherapy administered as first course therapy.**

82 [new] **Chemotherapy was not recommended/administered because it was contraindicated due to patient risk factors (i.e., comorbid conditions, advanced age).**

85 [new] **Chemotherapy was not administered because the patient died prior to planned or recommended therapy.**

86 [new] **Chemotherapy was not administered. It was recommended by the patient's physician, but was not administered as part of the first course of therapy. No reason was stated in patient record.**

87 **Chemotherapy was not administered. It was recommended by the patient's physician, but this treatment was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in patient record.**

88 **Chemotherapy was recommended, but it is unknown if it was administered.**

99 **It is unknown whether a chemotherapeutic agent(s) was recommended or administered because it is not stated in patient record. Death certificate only.**

CHEMOTHERAPY CONVERSION TABLE

SEER Code Manual 3rd Edition Chemotherapy	SEER Code Manual 3rd ed revision 1 Chemotherapy
0	00
1	01
2	02
3	03
7	87
8	88
9	99

Note: for SEER 3rd edition, codes 82-86 are invalid for SEER.

Hormone Therapy

Effective for SEER revision 1 of 3rd ed codes: Hormone Therapy field expanded to two digits (see conversion table which follows). Endocrine surgery and radiation moved to new Hematologic Transplant and Endocrine Procedures field. Treatments (none or actual) in 00-09 range. Reasons treatment not administered in 80-89 range. Unknown is now 99. Codes are the same as the FORDS manual.

00	**None, hormone therapy was not part of the planned first course of therapy.**
01	**Hormone therapy administered as first course therapy.**
82 [new]	**Hormone therapy was not recommended/administered because it was contraindicated due to patient risk factors (i.e., comorbid conditions, advanced age).**
85 [new]	**Hormone therapy was not administered because the patient died prior to planned or recommended therapy.**
86 [new]	**Hormone therapy was not administered. It was recommended by the patient's physician, but was not administered as part of the first course of therapy. No reason was stated in patient record.**
87	**Hormone therapy was not administered. It was recommended by the patient's physician, but this treatment was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in patient record.**
88	**Hormone therapy was recommended, but it is unknown if it was administered.**
99	**It is unknown whether a hormonal agent(s) was recommended or administered because it is not stated in patient record. Death certificate only.**

HORMONE THERAPY CONVERSION TABLE

SEER Code Manual 3rd Edition Hormone therapy	SEER Code Manual 3rd ed revision 1 Hormone therapy
0	00
1	01
2	00
3	01
7	87
8	88
9	99

Note: for SEER 3rd edition, codes 82-86 are invalid for SEER.

SEER 3rd edition revision 1: information on endocrine surgery and/or endocrine radiation will no longer be collected in this field. See Hematologic Transplant and Endocrine Procedures.

Immunotherapy

Effective for SEER revision 1 of 3rd ed codes: Immunotherapy field expanded to two digits (see conversion table which follows). Bone marrow transplant and stem cell procedures have been moved to new Hematologic Transplant and Endocrine Procedures field. Treatments (none or actual) in 00-09 range. Reasons treatment not administered in 80-89 range. Unknown is now 99. Codes are the same as the FORDS manual.

00	**None, immunotherapy was not part of the planned first course of therapy.**
01	**Immunotherapy administered as first course therapy.**
82 [new]	**Immunotherapy was not recommended/administered because it was contraindicated due to patient risk factors (i.e., comorbid conditions, advanced age).**
85 [new]	**Immunotherapy was not administered because the patient died prior to planned or recommended therapy.**
86 [new]	**Immunotherapy was not administered. It was recommended by the patient's physician, but was not administered as part of the first course of therapy. No reason was stated in patient record.**
87	**Immunotherapy was not administered. It was recommended by the patient's physician, but this treatment was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in patient record.**
88	**Immunotherapy was recommended, but it is unknown if it was administered.**
99	**It is unknown whether an immunotherapeutic agent(s) was recommended or administered because it is not stated in patient record. Death certificate only.**

IMMUNOTHERAPY CONVERSION TABLE

SEER Code Manual 3rd Edition Immunotherapy	SEER Code Manual 3rd ed revision 1 Immunotherapy
0	00
1	01
2[1]	00
3[2]	00
4[3]	00
5[4]	00
6[5]	01
7	87
8	88
9	99

Note: for SEER 3rd edition, codes 82-86 are not valid.

[1] **Note: bone marrow transplant--autologous has been moved to Hematologic Transplant and Endocrine Procedures code 11.**

[2] **Note: bone marrow transplant--allogenic has been moved to Hematologic Transplant and Endocrine Procedures code 12.**

[3] **Note: bone marrow transplant, NOS has been moved to Hematologic Transplant and Endocrine Procedures code 10.**

[4] **Note: stem cell transplant has been moved to Hematologic Transplant and Endocrine Procedures code 20 and has been renamed "Stem cell harvest."**

[5] **Note: combination of biological response modifier and bone marrow transplant or stem cell transplant will be recorded as separate fields. Record biological response modifier in the immunotherapy field and the appropriate bone marrow or transplant procedure in Hematologic Transplant and Endocrine Procedures.**

Hematologic Transplant and Endocrine Procedures

NEW field effective for SEER revision 1 of 3rd ed codes: Bone marrow and stem cell procedures are now coded in this field. Endocrine surgery or radiation is now coded in this field. Treatments (none or actual) in 00-30 range. Combination hematologic transplant and endocrine procedures coded as 40. Reasons treatment not administered in 80-89 range. Unknown is now 99. Codes are the same as the FORDS manual.

00	**No transplant procedure or endocrine therapy was administered as part of first course therapy.**
10	**A bone marrow transplant procedure was administered, but the type was not specified.**
11	**Bone marrow transplant–autologous.**
12	**Bone marrow transplant–allogeneic.**
20	**Stem cell harvest.**
30	**Endocrine surgery and/or endocrine radiation therapy.**
40	**Combination of endocrine surgery and/or radiation with a transplant procedure. (Combination of codes 30 with 10-20.)**
82	**Hematologic transplant and/or endocrine surgery/radiation was not recommended/administered because it was contraindicated due to patient risk factors (i.e., comorbid conditions, advanced age).**
85	**Hematologic transplant and/or endocrine surgery/radiation was not administered because the patient died prior to planned or recommended therapy.**
86	**Hematologic transplant and/or endocrine surgery/radiation was not administered. It was recommended by the patient's physician, but was not administered as part of the first course of therapy. No reason was stated in patient record.**
87	**Hematologic transplant and/or endocrine surgery/radiation was not administered. It was recommended by the patient's physician, but this treatment was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in patient record.**
88	**Hematologic transplant and/or endocrine surgery/radiation was recommended, but it is unknown if it was administered.**
99	**It is unknown whether hematologic transplant and/or endocrine surgery/radiation was recommended or administered because it is not stated in patient record. Death certificate only.**

HEMATOLOGIC TRANSPLANT AND ENDOCRINE PROCEDURES CONVERSION TABLE

For SEER, Conversion from RX Summ - Hormone and RX Summ - BRM to RX Summ - Transplnt/Endocr (#3250)		
SEER Program Code Manual 3rd edition		RX Summ - Transplnt/Endocr (#3250)
Rx Summ - Hormone	Rx Summ - BRM	
0, 1, 7, 8	0, 1, 7, 8	00
0, 1, 7, 8, 9	2	11
	3	12
	4, 6	10
	5	20
2, 3	0, 1, 7, 8, 9	30
	2, 3, 4 , 5, 6	40
9	0, 1, 7, 8	00
0, 1, 7, 8	9	00
9	9	99

Note for SEER: After analysis of data, it was decided that codes 7 and 8 in RX Summ - Hormone would be treated as though they only referred to hormonal therapy and not endocrine surgery. Similarly for RX Summ -BRM, codes 7 and 8 would only rarely reflect transplants refused or recommended. Therefore, for SEER, codes 82, 85, 86, 87, and 88 are invalid for cases using this conversion algorithm.

Cancer Registry File Reference Guide

	SCC DD					NAACCR	
Item #	SAS name	Field Name	Width	Start	Stop	Item #	Start Column
1	rectype	Record type	8	1	8		
2	site	Study site	1	9	9		
3	studyid	Study ID	10	10	19		
4	infodate	Information date	8	20	27		
5	regseq	Registry sequence number	1	28	28		
6	sccdate	SCC date	8	29	36		
7	county	County of residence	3	37	39	90	83
8	state	State of residence	2	40	41	80	72
9	brthdate	Date of birth	8	42	49	240	122
10	bplace	Place of birth	3	50	52	250	130
11	dxage	Age at diagnosis	3	53	55	230	119
12	carrace1	Race 1	2	56	57	160	103
13	carrace2	Race 2	2	58	59	161	105
14	carrace3	Race 3	2	60	61	162	107
15	carrace4	Race 4	2	62	63	163	109
16	carrace5	Race 5	2	64	65	164	111
17	ssurname	Spanish surname or origin	1	66	66	190	115
18	diagdate	Diagnosis date	8	67	74	390	283
19	seerseq	SEER sequence number	2	75	76	380	281
20	primsite	Primary site	3	77	79	400	291
21	subsite	Subsite	1	80	80	400	294
22	latralty	Laterality	1	81	81	410	295
23	morphlgyO2	Morphology ICD-O-2 (to 2000)	5	82	86	419	296
24	morphlgyO3	Morphology ICD-O-3 (2001+)	5	87	91	521	301
25	grade	Grade, differentation	1	92	92	440	306
26	diagconf	Diagnostic confirmation	1	93	93	490	311
27	sumstage	Summary stage (to 1999)	1	94	94	760	529
28	sumstg2000	Summary stage (2000+)	1	95	95	759	528
29	tnmsourc	TNM Source	1	96	96		
30	tnmtpath	TNM Pathologic T (to 2003)	2	97	98	880	563
31	tnmtclin	TNM Clinical T (to 2003)	2	99	100	940	573
32	ajcct	Derived AJCC T (2004+)	2	101	102	2940	659
33	ajcctdesc	Derived AJCC T Descriptor	1	103	103	2950	661
34	tnmnpath	TNM Pathologic N (to 2003)	2	104	105	890	565
35	tnmnclin	TNM Clinical N (to 2003)	2	106	107	950	575
36	ajccn	Derived AJCC N (2004+)	2	108	109	2960	662
37	ajccndesc	Derived AJCC N Descriptor	1	110	110	2970	664
38	tnmmpath	TNM Pathologic M (to 2003)	2	111	112	900	567
39	tnmmclin	TNM Clinical M (to 2003)	2	113	114	960	577
40	ajccm	Derived AJCC M (2004+)	2	115	116	2980	665
41	ajccmdesc	Derived AJCC M Descriptor	1	117	117	2990	667
42	tnmpathstg	TNM Pathologic Stage Group (to 2003)	2	118	119	910	569
43	tnmclinstg	TNM Clinical Stage Group (to 2003)	2	120	121	970	579
44	ajccstggrp	Derived AJCC Stage Group (2004+)	2	122	123	3000	668
45	ajccconflag	Derived AJCC Conversion Flag	1	124	124	3030	672
46	estrecep	Estrogen receptors (to 2003)	1	125	125	1150	626

SCC DD						NAACCR	
Item #	SAS name	Field Name	Width	Start	Stop	Item #	Start Column
47	estrecepcs	CS Estrogen receptors (2004+)	3	126	128	2880	641
48	prorecep	Progesterone receptors (to 2003)	1	129	129	1160	627
49	prorecepcs	CS Progesterone receptors (2004+)	3	130	132	2890	644
50	tumorsiz	EOD Tumor size (to 2003)	3	133	135	780	531
51	cstumsiz	CS Tumor size (2004+)	3	136	138	2800	629
52	extenson	EOD Extension (to 2003)	2	139	140	790	534
53	extensoncs	CS Extension (2004+)	2	141	142	2810	632
54	lymphnod	EOD Lymph node involvment (to 2003)	1	143	143	810	538
55	lncs	CS Lymph nodes involvment (2004+)	2	144	145	2830	635
56	posnods	Regional lymph nodes examined by pathologist positive	2	146	147	820	539
57	pathnods	Regional lymph nodes examined by pathologist	2	148	149	830	541
58	numnods	Treatment: Regional lymph nodes examined with surgery (1998-2002)	2	150	151	1296	863
59	lympsurg	Treatment: Scope of regional lymph node surgery (1998-2002)	1	152	152	1647	941
60	lnsurgf	Treatment: Scope of regional lymph node surgery (2003+)	1	153	153	1292	861
61	dfthdate	Treatment: Date first therapy initiated	8	154	161	1260	835
62	radiaton	Treatment: Radiation	1	162	162	1360	873
63	radwsurg	Treatment: Radiation sequence with surgery	1	163	163	1380	875
64	chemof	Treatment: Chemotherapy	2	164	165	1390	878
65	hormf	Treatment: Hormone therapy	2	166	167	1400	880
66	imunof	Treatment: Immunotherapy	2	168	169	1410	882
67	trnsend	Treatment: Hematologic transplant/endrocine proc (2003+)	2	170	171	3250	876
68	oththerp	Treatment: Other cancer-directed therapy	1	172	172	1420	884
69	seerrec	Treatment: Reconstruction - First course (1998-2002)	1	173	173	1330	867
70	surg88	Treatment: Site-specific surgery (1988-1997)	2	174	175	1640	932
71	surgery	Treatment: Site-specific surgery (1998-2002)	2	176	177	1646	939
72	surgf	Treatment: Site-specific surgery (2003+)	2	178	179	1290	859
73	surgoth	Treatment: Surgery other (1998-2002)	1	180	180	1648	942
74	surgothf	Treatment: Surgery other (2003+)	1	181	181	1294	862
75	her2neur	Her2neu	1	182	182	2700	5925

Reference: Standards for Cancer Registries, North American Association of Central Cancer Registries (NAACCR), Volume II, 10th edition, Version 11, 2004

BCSC Glossary of Terms

(Last updated 12/12/2005)

DEFINITIONS

Screening mammography

The radiologist's indication for exam is the primary determinant of whether a mammogram is screening or diagnostic. However, the BCSC typically applies additional criteria to examinations indicated to be screening to eliminate possible non-screening exams. The "working" definition for a screening mammogram must meet all of conditions 1-4 and conditions 5-7 are applied to select a screening population:

1. We start with examinations indicated to be for "screening" by the radiologist (inclusion criteria #1 in computed variables (scrcrit_c1), based on variable in Radiology file II.13 indicate=1).
2. Because there may be multiple exams on the same day, we only include the first exam in the sequence (inclusion criteria #2 in computed variables (scrcrit_c2), based on variable in Radiology file II.5 examseq=1). [Note that when the exam sequence is unknown, the SCC guidelines are to sort first by indication (ordered 1,3,4,2), then by overall assessment (ordered 0-5)].
3. We require that bilateral routine views be performed (inclusion criteria #4 in computed variables (scrcrit_c4), based on variable in Radiology file II.17 routview = 4 or 5; if routview is missing then we require II.15 mamm = 4 or 5 or II.15 digimamm = 4 or 5). Unilateral exams are excluded because this often indicates that the woman may have had a previous unilateral mastectomy or that the exam was done for diagnostic purposes.
4. We exclude screening exams that are preceded by any radiologic exam within the prior nine months based on examinations in the database, (inclusion criteria #7 (scrcrit_c7), based on the Radiology and Additional imaging files), woman's self-report of a previous mammogram (Patient file I.20 lastdate), radiologist's report of a previous mammogram (Radiology file II.12 prevdate), or a comparison film date (Radiology file II.27 compdate). The combination of these last three sources of a radiologic exam within the prior nine months is inclusion criteria #8 in the computed variables (scrcrit_c8).
5. We exclude exams on women with a history of breast cancer based on either self-report (inclusion criteria #5 in computed variables (scrcrit_c5), based on variables in Patient file I.23 bchist = 1-5 or I.25 ageatdx = age given or I.26 dxdate = date given) or breast cancer diagnosis found in the cancer registry or pathology file (inclusion criteria #6 in computed variables (scrcrit_c6_, based on newdxdt (date of first breast cancer from cancer registry or pathology) prior to exam date).
6. We exclude women who report breast implants at the time of that exam (inclusion criteria #9 in computed variables, based on Patient information file I.35 brstaugm = 1-5).
7. We exclude exams with a left, right, or overall assessment of '6' (known biopsy – proven malignancy). This assessment code was added in the ACR BI-RADS® – Mammography, 4th Edition Atlas.

The above describes the BCSC "standard" definition of a screening mammogram which has been used in many papers, including a paper describing screening performance by time since last mammogram by Yankaskas et al. (*Radiology*, 2005). However, the definition of a screening mammogram may vary depending on the analysis. For example, an analysis may also require that there be no self-report of breast symptoms. The SCC has a computed variable for

symptoms (ordered by level of concern: lump, nipple discharge, other not including pain, pain, other not specified, and none), so that any level of symptoms can easily be excluded. Alternatively, when an analysis includes both screening and diagnostic mammograms, one may prefer to only use a radiologist's indication for the exam to categorize the mammogram type.

Diagnostic mammography

The definition of a diagnostic mammogram may differ among analyses. For example, in a paper by Sickles et al. (*Radiology*, 2005), diagnostic mammograms were defined as those where the radiologist's indication for exam is additional work-up of an abnormality detected at screening examination, short-interval follow-up, or evaluation of a breast problem, and results were shown separately for these different types of diagnostic mammograms. However, in papers by Barlow et al. (*JNCI*, 2002) and Geller et al. (*Radiology*, 2002), diagnostic mammograms only included those where the radiologist's indication for exam is evaluation of breast problem. It is important to stress that the performance characteristics are different for the different types of diagnostic mammograms, so we do not recommend combining results across the different types of diagnostic mammograms.

There can be more than one diagnostic mammogram on the same day. However, we require diagnostic mammograms be at least 180 days apart if they both have a BI-RADS® assessment '0' and there are no Radiology exams with a non-zero assessment or Additional Imaging Follow-up exams with a resolved result between them. We assume any unresolved exams within the 180 days are from the same work-up period. This is our current definition of diagnostic mammograms, but other definitions may have been used in earlier papers.

Overall assessment of mammogram

The BI-RADS® assessments range from 0-6 where:

- BI-RADS® 0 indicates additional imaging evaluation is needed
- B-IRADS® 1-5 indicates the level of suspicion for malignancy
- BI-RADS® 6 indicates there is a known malignancy from a biopsy

Each record in the Radiology record contains a field for the left assessment, right assessment, and overall assessment. The overall assessment reflects the most serious assessment between the left and right breast. If the left and right assessments are different, the overall assessment is the 'highest' assessment in the following list ordered from the least to most concern: 1, 2, 3, 0, 4, 5 and 6. For exams where the laterality is unknown, the left and right assessments are missing, but an overall assessment is given. The SCC also computes the overall assessment as a data check and the SCC variable is used in all analyses.

Initial (before work-up) assessment of mammogram

The initial assessment for screening mammograms is the assessment made before any additional imaging is performed. The use of additional imaging is determined from the screening exam record using variables II.18 diagview = 1-5, II.20 useaddv = 1, II.21 ultrasnd = 1-5, and II.22 useultra = 1 and checking whether other imaging examinations (mammogram or ultrasound) are performed on the same day from both the Radiology and Additional Imaging Follow-up files.

If additional imaging is done on the same day as the screening mammogram, the initial assessment is set to BI-RADS® 0. Otherwise, the initial assessment is considered the first recorded assessment in that imaging series. This definition was used in the paper by Yankaskas, et al. (*Radiology*, 2005) which looked at screening performance by time since last mammogram.

We do not give an initial assessment for diagnostic mammograms because they are performed to resolve a problem and should only result in a BI-RADS® assessment of 1-5 at the end of all imaging work-up.

Final (end of work-up) assessment of mammogram

In general, only screening mammograms with an initial assessment of BI-RADS® 0 or BI-RADS® 3 with a recommendation for immediate follow-up and diagnostic mammograms with an assessment of BI-RADS® 0 are followed up for a final assessment. For all other mammograms, the final assessment is taken to be the initial assessment. Also, in the case where a screening mammogram has a non-zero assessment but the initial assessment is set to BI-RADS® 0 because of additional imaging performed on the same day, the final assessment is the non-zero assessment.

We look up to 180 days from the mammogram for the first non-zero assessment in the Radiology file and first record in the Additional Imaging Follow-up file with a resolved result (not Inconclusive, Pending, or missing) or recommendation (not Additional evaluation or missing). If there is a record from both files, the earliest one is used. If the earliest record is from the Additional Imaging Follow-up file, the BI-RADS® assessment will be missing but the mammogram result can still be classified as positive or negative based on the imaging result and recommendation.

The follow-up period is truncated at the time of a breast biopsy or surgery if it occurs before 180 days. If there is no breast biopsy or surgery and there is a cancer diagnosis, the follow-up period is truncated at the cancer diagnosis date if it occurs before 180 days. The first cancer diagnosis is used for screening mammograms and all cancers are used for diagnostic mammograms.

It is possible that some of these mammograms will not be resolved and will have a final assessment of BI-RADS® 0.

There may be variations of this definition depending on the analysis being done. For example, the paper by Miglioretti, et al. (*JAMA*, 2004) on breast augmentation and accuracy of mammography used a follow-up period of 90 days instead of 180 days.

Points to keep in mind are the following:

- Even though the initial mammogram is coded 1-5, the assessment may change during the work-up period. Some argue that the final assessment and initial assessment can differ even though the first was non-zero.
- Some cancer registries define the date of diagnosis as the first evidence of breast cancer. Therefore, if an abnormality is noted on a screening mammogram and the radiologist gives it an assessment of zero, that screening mammogram date may be taken as the diagnosis date even if additional imaging is performed on a different day. Therefore, we may be truncating the follow-up period too soon. This will only occur if we have no record of a biopsy being performed within 180 days.

Positive and negative mammography result

A mammogram result is determined to be positive or negative based on the BI-RADS® assessment and recommendation given. The BCSC/SCC has adopted the use of the plus sign "+" to mean there was some recommendation for immediate follow-up.

The term "3+" means the assessment is BI-RADS® 3 with a recommendation for any immediate follow-up (additional imaging, ultrasound, MRI, nuclear medicine, clinical exam, fine needle aspiration, biopsy, surgical consult or some other non-specified work-up). The term "3-" is not often used but it means the assessment is BI-RADS® 3 with a recommendation for normal or short interval follow-up only (no immediate follow-up).

The term "0+" means the assessment is BI-RADS® 0 with a recommendation for biopsy, fine needle aspiration, or surgical consult.

	Screening mammogram	Diagnostic mammogram
Positive	BI-RADS® assessment: 3+, 0, 4 or 5	BI-RADS® assessment: 0+, 4, or 5
Negative	BI-RADS® assessment 1, 2, or 3 with recommendation for normal or short interval follow-up	BI-RADS® assessment 1, 2, 3, or 0 without a recommendation for biopsy, fine needle aspiration, or surgical consult

Assessments 1 and 2 are negative regardless of recommendations. Assessments 4 and 5 are positive regardless of recommendations. Assessment 0 is positive for screening mammography and depends on the recommendation for diagnostic mammography. Assessment 3 is negative for diagnostic mammography and depends on the recommendation for screening mammography.

For the purposes of ROC analysis we order the outcomes as either (1, 2, 3, 0, 4, 5) or (1, 2, 3-, 3+, 0, 4, 5) for screening mammography and (1, 2, 3, 0, 4, 5) or (1, 2, 3, 0-, 0+, 4, 5) for diagnostic mammography.

If the mammogram result is based on a record from the Additional Imaging Follow-up file (with resolved result or recommendation), the result is classified as positive if the recommendation is 'Surgical consult or biopsy' and negative if the recommendation is 'Normal interval screen' or 'Short interval follow-up'. If the recommendation is 'Additional evaluation' or missing, the result is used where 'Abnormal' is positive and 'Normal' is negative. Records with a final result from the Additional Imaging Follow-up file would not be included in any ROC analysis.

Breast cancer cases

The first diagnosis of breast cancer, invasive or ductal carcinoma *in situ* (DCIS), for each woman is identified through the cancer registry and pathology files. If the pathology and cancer registry files disagree and the diagnoses are within 60 days of each other, we use the pathology diagnosis at NC and VT and cancer registry diagnosis at GH and NM. For NH, the earlier diagnosis is used. If there are diagnoses of both invasive cancer and DCIS, the earliest result is taken if the two diagnoses are more than 60 days apart. If the two diagnoses are within 60 days of each other, the invasive result is taken but the DCIS date is retained as the diagnosis date. For cancer characteristics (e.g., size, stage, nodal status), we take the most severe result from all records with the same cancer type (invasive or DCIS) within 60 days of diagnosis.

Only invasive and DCIS breast cancer cases are included as breast cancer. Sarcomas (including cystosarcoma phyllodes), lymphomas, and LCIS are excluded.

Follow-up period post-mammogram for cancer diagnosis

Both screening and diagnostic mammograms are followed for one year (365 days) for cancer diagnosis. For screening mammograms, the follow-up period is truncated at the next screening exam if the screening exam is 270-365 days after the mammogram. This definition was adopted based on a paper by Rosenberg et al (*Acad Radiol*, 2000). However, non-screening mammograms occurring less than 270 days after the exam do not terminate the follow-up period. Note that this definition is different from the definition described in the ACR BI-RADS® manual that uses a strict 365-day follow-up period.

PERFORMANCE MEASURES

Below are definitions for performance measures that are often used in BCSC papers. Note, that the BCSC definitions of positive and negative mammogram and cancer in the follow-up period may be different from those used by the American College of Radiology.

False positive: positive mammogram with no breast cancer diagnosed by the end of the follow-up period.

True positive: positive mammogram with DCIS or invasive breast cancer diagnosed by the end of the follow-up period.

False negative: negative mammogram with DCIS or invasive breast cancer diagnosed by the end of the follow-up period.

True negative: negative mammogram with no breast cancer is diagnosed by the end of the follow-up period.

2x2 table:

Outcome	Positive mammogram	Negative mammogram	Total
Cancer diagnosis by end of follow-up	A (true positive)	C (false negative)	A+C
No cancer diagnosis by end of follow-up	B (false positive)	D (true negative)	B+D
Total	A+B	C+D	

Sensitivity is the proportion of cancers within the follow-up period of the mammogram that had a positive mammography assessment

$$\text{Sensitivity} = \frac{A}{A+C}$$

Specificity is the proportion of non-cancers within the follow-up period of the mammogram that had a negative mammography assessment

$$\text{Specificity} = \frac{D}{B+D}$$

Positive Predictive Value (PPV) has three separate definitions:

PPV_1 is the proportion of exams with a positive assessment that had a cancer diagnosis in the follow-up period (referred to as PPV if no other definitions are used)

$$PPV_1 = \frac{A}{A+B}$$

PPV_2 is the proportion of exams with a recommendation for biopsy or surgical consult (based on recommendation alone or combination of assessment and recommendation) that had a cancer diagnosis in the follow-up period.

PPV_3 is the proportion of exams with a recommendation for biopsy or surgical consult (based on recommendation alone or combination or assessment and recommendation) and a biopsy performed that had a cancer diagnosis in the follow-up period. Note: data on biopsy procedures is not complete and completeness may depend on site.

All three definitions of PPV were used in a paper by Sickles et al. (*Radiology*, 2005) which looked at performance benchmarks for diagnostic mammography.

Negative Predictive Value (NPV) is the proportion of exams with a negative assessment that did not have a cancer diagnosis in the follow-up period

$$NPV = \frac{D}{C+D}$$

The consequence of shortening the follow-up period for screening mammograms must be understood. Consider the following example:

Date	Event	Assessment	Classification
Jan 1, 2000	Screening mammogram	Negative	True negative
Nov 1, 2000	Screening mammogram	Positive	True positive
Nov 1, 2000	Cancer diagnosed		

By the ACR definition, the first mammogram would be classified as false negative exam because a breast cancer was diagnosed within 365 days of a negative exam. However, based on our definitions, the follow-up period ended October 31, 2000 because of the Nov 1 screening exam so the first mammogram would be classified as a true negative exam. This would result in increasing the sensitivity. For the purpose of classification, there are two entries for this woman into the analysis.

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PRESENTATIONS

Linn Abraham and Erin Aiello. Definitions used for Performance Assessment, Time to Re-visit? April 2005 BCSC meeting